

AN INQUIRY INTO SOME RELATIONSHIPS BETWEEN CHURCH
ATTENDANCE AND SCHOOL PARTICIPATION BEYOND
REGULAR CLASSROOM ACTIVITY

A Dissertation
Presented to
The School of Graduate Studies
Drake University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Thomas E. Gruis
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Approved by Committee:

Robert L. Evans
Chairperson

Walter C. Brandon

Richard W. Brooks

Levin J. M. Hurlen

Earl L. Canfield
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Thomas E. Gruis
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Advisor: Robert L. Evans

The problem. The purpose of this study was to determine if certain relationships exist between students' frequency of attendance at church and grades, involvement in school sponsored activities, and certain social characteristics in their school lives.

Procedure. The study was conducted in the ninth grade social science classes at a junior high school in Iowa. It included all ninth grade students. This sample provided a good cross section because of a wide variation in incomes, professions of parents, fairly wide geographical area of the city, and numerous national and religious backgrounds. The population was limited by the small number of either black or Jewish students that have been observed to attend that school. There was a large group of Latino students. However, since the problem was to identify relationships between school participation and church attendance, it was a sample that gave a good indication of church and non-church students.

An inventory was designed by the researcher in consultation with Drake faculty members to gather data. The instruments were screened for usefulness on each of the questions asked. The Chi-square test of independence was applied to the data generated on each of the questions asked relating to school activities tabled against the frequency of church attendance. A significance of 0.05 was assumed.

Findings. Each of the three questions stated above was investigated through the use of null hypotheses. In all cases except one, a significant relationship was found between the frequency of church attendance and the specific item of each null hypothesis. The exception was the frequency which students reported they felt good about themselves. The study includes results of the Chi-square tests for the entire group and also for the comparison of those who attend church more than once per week to the balance of the sample, those who never attend church to the balance of the sample, and those who attend church

more than once per week to those who never attend church. Results are reported also for the whole group of a test instrument administered before the inventory and to a different group. The following results indicate the level of significance found for the whole group on the inventory.

Question 1. Do church goers receive higher grades? It was found that the level of significance between the frequency of church attendance and the grade point average was positive at the 0.001 level and that a positive relationship also existed with reference to honor roll membership at the 0.02 level.

Question 2. Are church goers more involved in school activities? A positive relationship was found at the 0.001 level between the frequency of church attendance and frequency of attendance at extra-curricular, athletic, vocal music, instrumental music, and school service activities.

It was also found that in each of the above activities there was a positive relationship between the frequency of church attendance and the number of groups of that activity in which students participated at the 0.001 level except that a 0.01 level was found for athletics.

Question 3. Do church goers have certain different social characteristics in their school life? A significance level of 0.001 was found for the frequency of church attendance and fewer absences from school, more frequent enjoyment of school, the number of students planning to go on a class trip, and less frequent discipline. Church goers received less severe discipline as indicated by a 0.05 level. The frequency of feeling good about themselves was at the 0.1 confidence level and indicated a positive relationship.

Conclusions. On the basis of this study it is concluded that church goers do get higher grades, are more involved in school activities, and do have certain different social characteristics than non church goers. The most consistent indications of significance occur in terms of comparison of the whole sample to those who never attend church. Any church attendance does affect the grades, participation and social characteristics of the students.

Recommendations. Further studies should be conducted to determine which churches show the greatest relationship to the school participation; what practices are seemingly most beneficial in a total church program to school participation; if other non-school institutions also have an effect on school participation; if there is indeed a

causal relationship between church attendance and school participation; what input the school may have on the students' church participation; and what is the nature of the students' activities at church relative to their school participation.

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Chapter 1

INTRODUCTION

Overview of Study

It is readily observable that some public school students are much more involved and apparently more successful in their school careers than others.

Religion and education are inevitable companions of each other; for whenever any religion exists as a living, vital experience, its adherents wish to guarantee its perpetuation.¹

Religion and education have as an integral part of their existence the training of people for specific purposes and in certain areas. Both the church and the school have input into the thought patterns of students when those students attend both institutions, because both require active decisions regarding acceptance and faith, or rejection. Religion has done much to shape mankind historically. During long periods of history, people experienced formal religious training when there was no formal education available to them other than on the job training as in the lives of medieval serfs. Today one often hears about the "Three R's." In earlier American education, however, the

¹Marvin J. Taylor, Religious Education: A Comprehensive Survey (New York: Abingdon Press, 1960), p. 11.

"Fourth R" was religion which often served as an impetus for the establishment of formal schools. In recent years, though, much litigation has taken place regarding the inclusion, exclusion, and some might say the confusion of established religion and public education in the United States.

The purpose of this study was to determine if certain relationships exist between the frequency of students' church attendance and their achievement and participation at a public school beyond regular classroom activities. Three questions were asked. Do church goers receive higher grades? Are church goers more involved in school activities? Do church goers have certain social characteristics in their school life?

The resulting information can help educators in understanding one more of the factors which influences the overall development of students. While there may be reason to think that there is a cause relationship, it was not the purpose of this study to establish such a cause relationship. This study was not a factor analysis.

There are some universal concerns or ideas existing that seem to be tacitly accepted such as the various forms of love, curiosity, loyalty to something or somethings, chronos meaning the measurement and useage of time, and kairos meaning time that has some special value. People are forced to make decisions about these and other ideas. The result of these decisions determines whether knowledge in

a given area will be but surface knowledge or profound knowledge with considerable depth. Religion and education both require active choices about acceptance or rejection and these choices seem often to be based upon intuitive knowledge or ignorance; however, both education and religion seem to strive to have decisions made that are based on some actual knowledge of the subjects involved. Curiosity and faith need not be mutually exclusive.

Some special characteristics of religion are the study and faith surrounding a person's relationships to God or gods or spiritual factors; a specific set of guidelines that regulate dealings with others; how a person uses and views objects; and the way that a person pictures himself in the total picture of creation relative to God's or gods' revealed knowledge as interpreted through faith. Religion may be of great influence either because of faith or because of a lack of faith, a desire to follow religion or to rebel against it. Continuing themes throughout the Jewish-Christian heritage are wisdom, faith, hope, and love.

Some special characteristics of education include an emphasis on the process of learning, a vocational emphasis, and development of the ability to solve problems and to synthesize. One hopes an educational system will strive to implant curiosity within a learner that will be one type of internal motivation to learn more and more about a subject. Jerome Bruner states:

For the person to search out and find regularities

and relationships in his environment, he must be armed with an expectancy that there will be something to find and, once aroused by expectancy, he must devise ways of searching and finding.¹

The ability to learn is well displayed in the present time as a most necessary trait due to rapid changes. One specific example of the rapid changes in the total environment is found in vocational or job related conditions. People often must be retrained several times for quite different occupations. Indeed many occupations change so rapidly due to advancing technology or changing requirements or regulations that continual training, much of it done by the individual, must be effected. This is but one area related to Toffler's "Future Shock".²

The ability to solve problems, often done by seeking a solution through synthesis of many ideas is developed more through educational processes than through religion per se. Education tends to train the individual to adapt to his surroundings. Religion tends to encourage the individual to adapt to a certain viewpoint. Information must be gathered, tested, and then applied to a problem along with other bits of information. To solve problems and to synthesize does not imply the exclusion of new thoughts and creative activity but rather should provide a

¹Jerome S. Bruner, "The Act of Discovery," eds., Robert L. Evans and Ralph H. Wagoner, The Emerging Teacher (New York: Simon and Schuster, 1970), BRU-5A.

²Alvin Toffler, Future Shock (New York: Bantam Books, 1970).

fertile base for such creativity to grow drawing not only from the experience of the individual but also upon the total experience of mankind as experienced by that individual. Therefore education may also be seen as offering many new opportunities for learning and the application of learning. John Dewey pointed out:

. . . The religious experience is a reality in so far as in the midst of effort to foresee and regulate future objects we are sustained and expanded in feebleness and failure by the sense of an enveloping whole. Peace in action not after it is the contribution of the ideal to conduct.¹

The relationships that are found to be in common with religion and education are many. They seem easier to describe than the foregoing specific and rather arbitrary attempts at articulation.

Religious institutions and educational institutions may or may not admit that they agree on goals, purposes, directions, or values, but it is possible that they may in fact agree. Expressed or implied differences may be exaggerated by language and semantics. The content, interpretation, and emphasis is determined by the individual institutions to fulfill the purposes for which those institutions were established and intended.

Some areas of common concern, or of relationships, between education and religion follow. The listing will be cursory. "Train up a child in the way he should go and

¹John Dewey, Human Nature and Conduct (New York: The Modern Library, 1950), p. 264.

when he is old, he will not depart from it."¹

1. discipline
2. inculcation of ideas
3. values and traits
4. some curriculum or plan of study
5. underlying philosophy and/or purpose
6. both require student participation even if only attendance
7. a striving toward a view of life that is Gestalt (organized whole); coherence
8. communication especially as seen as a two or more way process
9. new horizons of experience, possibility, and opportunity
10. social growth and social concern
11. use of leisure time; avocational pursuits
12. aesthetics--perhaps moving toward agape love or even spirituality
13. standards of morality and of ethics
14. self-awareness
15. synergistic; the whole of life is more than the sum of its parts
16. deemphasis on subject matter boundaries
17. some way of handling and solving problems²

The institutions of church and school deal in the most vital areas of developing the moral, ethical, and aesthetic sensitivities of individuals. This does not imply exclusive credit or responsibility for this development since home, associations, peer groups, media, self motivation, just to name a few, are also involved in the same development. However, church and school appear to be

¹The Holy Bible, King James Version, Proverbs 22:6.

²There are several various listings of areas of concern including: Robert J. Havighurst, Developmental Tasks and Education (New York: David McKay Co., Inc., 1952); Robert J. Havighurst, The Educational Mission of the Church (Philadelphia: The Westminster Press, 1965), pp. 54-57; Luther Flynn, "A Study of Moral, Spiritual and Religious Values in Public Schools of Virginia," Dissertation Abstracts, International, XVI (1956), 1617.

the most formalized and dedicated to these purposes.

There is no question that nonschool influences may also have had a part in shaping the direction and strength of tendencies expressed by the interviewees in the study. People influence people whether they are teachers, parents, teen-agers, or relatives . . .¹

People are influenced by other people. From
Robert Havighurst:

There is no developmental task of children or adolescents which the school can completely ignore, for the reason that the tasks are so closely interrelated that difficulty in one task, which may show in the school, is often tied up with difficulty in another task for which the school has little direct responsibility.²

There is a whole cluster of mental attitudes that the school should help the child acquire . . . because they are sound and will have the most fortunate influence on the general welfare.³

Here are some vital areas of development. The product of that development may be viewed, among other ways, as traits or developed or developing processes.

1. respect, e.g., for elders, law and order, other people generally, differing views
2. responsibility--both person and social leadership
3. orderliness
4. prioritization
5. discipline--a view of authority and regulations; seen as reason and direction
6. evaluation--of self and surrounding conditions, hopefully objective

¹Robert F. Mager, Developing Attitude Toward Learning (Palo Alto, California: Fearon Publishers, 1968), p. 37.

²Havighurst, Developmental Tasks and Education, p. 29.

³Emile Durkheim, Moral Education (New York: The Free Press, 1961), p. 50.

7. patriotism
8. curiosity
9. self awareness
10. communication via speaking and listening,
reading and writing, perhaps adding empathy and the
religious adding prayer
11. hard work
12. justice
13. dependability
14. concern for quality of life
15. humaneness
16. ecology/conservation

Values and/or traits will continue to emerge as areas of knowledge and experience grow and as specific needs and problems develop.¹

There are several aspects of human beings that make them most unique. The view that one has of one's own kind will influence the ways that the person thinks about and plans for meeting the needs and wants of humanity.

Humans are social beings that both want and need the company of other people. It is through other people that each individual becomes a human being instead of just another animal. Skinner speaks of those who were reportedly not raised with other people:

Without a social environment, a person remains

¹Several references make suggestions for development of attitudes, quite often referred to as moral education. Some of these references are: Durkheim, loc. cit.; Flynn, loc. cit.; Havighurst, Developmental Tasks and Education, pp. 67-69; Henry C. Morrison, The Practice of Teaching in the Secondary School (Chicago: The University of Chicago Press, 1926), pp. 371-387; Ralph W. Tyler, Basic Principles of Curriculum and Instruction (Chicago: The University of Chicago Press, 1949), p. 20.

essentially feral, like those children said to have been raised by wolves or to have been able to fend for themselves from an early age in a beneficent climate. A man who has been alone since birth will have no verbal behavior, will not be aware of himself as a person, will possess no techniques of self-management, and with respect to the world around him, will have only those meager skills which can be acquired in one short lifetime from nonsocial contingencies. In Dante's hell, he will suffer the special tortures of those who "lived without blame and without praise," like the "angels who were . . . for themselves". To be for oneself is to be almost nothing.¹

Humans are capable of very specific memory, communication, and accurate recording of time and of relating these things to one another in an orderly fashion. Not only are these skills built into the physical structure of humans, but also have been extended through many aids and technological devices.² Likewise mankind can solve particular and complex problems.

There is a hunger in man for God or gods; what seems to be a natural seeking for something outside of ourselves and greater than we are. Faith in this greater power, by whatever name or concept, provides us with an order and direction for our lives. To receive reasonable discipline is to know that someone or something regards us as of worth. Havighurst believes that:

The way to understand a society's educational

¹B.F. Skinner, Beyond Freedom and Dignity (New York: Bantam Books, 1971), pp. 117-118.

²Marshall McLuhan, Understanding Media: The Extensions of Man (New York: Signet Books, 1964).

system is to understand how it is related to other basic institutions of that society, in particular the family, the church, the state and the economy.¹

Tyler discusses physical needs, social needs, and integrative needs relating to something beyond ourselves and to have a philosophy of life.²

In the last few years, educationists have identified the three domains of students as cognitive or "knowledge," affective or "emotional," and psychomotor or "physical". Specific talents are in part identified by the meld of these domains. Estvan states the need for explication of the affective domain to at least the same degree as the cognitive and psychomotor domains.³

In a like manner, society has several aspects. The relationship between society and an individual can become something of the question of the chicken and the egg, for each has influence on the other. But, for the most part, it seems that we are products of our environment, which is in large part, the civilization within which we live. An important factor in the formation of societal qualities is quite often religion, reaction to religion,

¹Sarane Spence Boocock, An Introduction to the Sociology of Learning (Boston: Houghton Mifflin Company, 1972), p. 289.

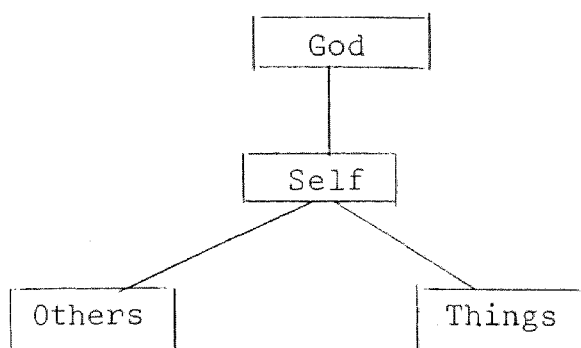
²Tyler, op. cit., p. 7.

³Frank J. Estvan, "Emerging Proiorities for the Young," The Curriculum: Retrospect and Prospect, ed. Robert M. McClure (Chicago: The National Society for the Study of Education, 1971), p. 255.

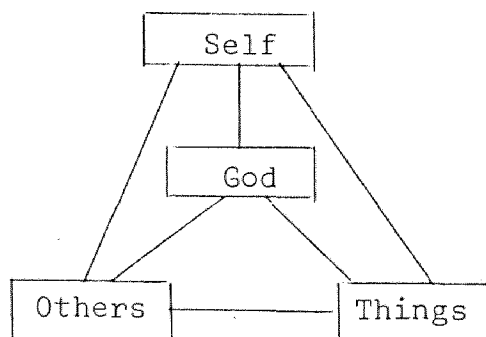
or lack of religion.

The following diagrams may illustrate a way of viewing the similar but different views of education and religion in reference to the individual in the total scheme of things.

An "Educational" View



A "Religious" View



The given opportunity to see the self in relationship to other aspects of existence. As that person reaches out, their development may be like Bruner's spiral curriculum.¹ Knowledge leads to conclusions about the order and way of life.

In religion, the individual is directed toward a view that God is the central element of existence. Within the lines showing relationships is found love and order based on faith. Without is found probable contention and confusion. Faith leads to knowledge, interpretation, and coherence.

Purpose of Study

The purpose of this study was to determine if certain relationships exist between students' frequency of attendance at church and grades, involvement in school

¹Jerome S. Bruner, The Process of Education (New York: Vintage Books, 1960), pp. 13, 52-54.

sponsored activities, and certain social characteristics. The terms "church" or "churches" were used because of the nature of the population.

Three questions were asked. Do church-goers receive higher grades? Are church-goers more involved in school activities? Do church-goers have certain social characteristics in their school life?

Two null hypotheses were stated to determine if the frequency of church attendance related to grades received.

1. There is no difference in grades received among those who do attend church and those who do not attend church.

2. There is no difference in honor roll membership among those who do attend church and those who do not attend church.

Five null hypotheses were stated to determine if the frequency of church attendance related to participation in school activities.

3. There is no difference in participation in non-athletic, non-musical extracurricular activities among those who do attend church and those who do not attend church.

4. There is no difference in participation in school sponsored athletics, other than physical education classes, among those who do attend church and those who do not attend church.

5. There is no difference in participation in vocal music activities among those who do attend church and those who do not attend church.

6. There is no difference in participation in instrumental music activities among those who do attend church and those who do not attend church.

7. There is no difference in terms of participation

in school service positions among those who do attend church and those who do not attend church.

Five null hypotheses were stated to determine if the frequency of church attendance related to certain social characteristics.

8. There is no difference in the frequency of absence from school among those who do attend church and those who do not attend church.

9. There is no difference in how often students reported that they enjoyed school among those who do attend church and those who do not attend church.

10. There is no difference in how often students reported that they felt good about themselves among those who do attend church and those who do not attend church.

11. There is no difference in disciplinary action received among those who do attend church and those who do not attend church.

12. There is no difference in whether or not students planned to go on an optional class trip among those who do attend church and those who do not attend church.

Definitions

Church--one or another of the various organizations representing the formal institutionalized organizations of the Christian Faith.

Church attendance--presence at any activity sponsored by a church organization such as worship, youth group, music programs, or athletic events.

Classroom activities--routine exercises and learning experiences during formal instruction in scheduled classes.

Extra-curricular activities--school sponsored clubs or interest groups that meet outside of regular

class hours and at which attendance is voluntary.

Honor roll membership--includes those listed as having achieved that certain level of grade average specified by the administration of the school. During the 1977-78 school year this included students with all A's and B's. During the 1978-79 school year this included students with a B or better average.

Religious involvement--personal affiliation, attendance, or involvement with one or another of the churches in the community.

School--a public school; in this case a junior high school in Des Moines, Iowa. Students of the ninth grade, high school freshman class, of this school that comprised the population for this study.

School participation--any or all of the following: inclusion on the honor roll, athletics, extra-curricular activities, school service activities, or other recognition, distinction, or voluntary participation.

School service activity--those optional and volunteer activities including office workers, nurse's helpers, student librarians, audio-visual crew, and related groups within the school where some special responsibility is entrusted to students.

Basic Assumptions

Churches will have had an opportunity to instill awareness of social and personal responsibility in church-

going youth by their first year in high school. Most confirmations, catechisms, and so forth, are completed by grades eight or nine.

Nathan Weeks Junior High provided adequate opportunities for achievement and participation in classes and extra-curricular and elective activities.

The sample studied was a representative sample of youth in this area.

Procedure

The study was conducted in the ninth grade social science classes at a junior high school in Iowa. It included all ninth grade students. This population provided a good cross section because of a wide variation in incomes, professions of parents, fairly wide geographical area of the city, and numerous national and religious backgrounds. The sample was limited in terms of the small number of either black or Jewish students that have been observed to attend that school. There was a large number of Latino students. However, since the problem was to identify relationships between school participation and church attendance, it was a sample that gave a good indication of church and non-church students.

Administration was during class time. The total sample was about 270 students and at least 186 usable responses were obtained for each item on the inventory.

An inventory was designed by the researcher in consultation with Drake faculty members to gather preliminary data. This inventory was devised to include (a) an overall view of the group studied, (b) a determination of frequency of attendance at any church sponsored activity, and (c) a determination of frequency of participation in non-athletic extra-curricular activities, school sponsored athletics other than gym classes, school sponsored vocal music, school sponsored instrumental music, school service positions, how often the respondent felt that they enjoy school, frequency of disciplinary action, severity of disciplinary action received, grade point average, honor roll membership, number of absences, and whether or not the respondent planned to go on a Kansas City trip that was an optional class activity in the ninth grade at Nathan Weeks.

The form of response was the inventory style. A preliminary instrument was test administered to twenty of the ninth grade class of 1978 and to twenty-five eighth graders, and then on May 18, 1978, to most of the ninth grade class. Some refinements were made in wording and phraseology prior to this date, and further refinements were made before the administration of the instrument used in this study which was given in mid November, 1978. Comparisons were made between the two administrations.

The instruments were screened for usefulness on each of the questions asked. A given inventory was

then useful on all, some, or none of the items for which information was sought.

The Chi-square test of independence was applied to the data generated on each of the above items of participation at school tabled against the frequency of church attendance. The Chi-square test was appropriate since the data was expressed in terms of frequency. The use of the Chi-square statistic is discussed in Downie and Heath and other books.¹ A significance level of 0.05 was assumed.

It was the intent of this study to:

1. determine the school participation in terms of types and numbers of activities for students who are church-goers and for those who are not.
2. observe if there is a significant relationship between the frequency of church attendance and the school participation.
3. observe what, if any, alternatives to religious involvement may become apparent in the course of this study.
4. compile data to provide a demographic description of the sample population of this study.

It was not the intent of this study to:

1. produce specific recommendations for specific programs.
2. investigate participation in activities other than school sponsored and church sponsored activities. This will preclude study of such memberships as may be found in scouting, fraternal, special interest organizations, or any religious group other

¹N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, Publishers, 1974), pp. 188ff.

than that of Christianity.

3. investigate socio-economic influences either on school involvement nor on church attendance.

4. investigate specific church's influences on school involvement.

Chapter 2 of this study is a review of literature.

Chapter 3 reviews the research design, describes the population, discusses the inventory instrument used, its administration and analysis.

Chapter 4 presents the results of the findings and discusses the null hypotheses presented in this study.

Chapter 5 discusses the results of the findings as related to the questions presented in Chapter 1. A summary of the results is presented with conclusions and recommendations.

Chapter 2

RELATED LITERATURE

Introduction

The purpose of this study is to determine if certain relationships exist between the frequency of students' church attendance and their achievement and participation at a public school beyond regular classroom activities. Three questions and their related hypotheses have been presented in this study. Do church-goers receive higher grades? Are church-goers more involved in school activities? Do church-goers have certain different social characteristics in their school life?

This chapter presents a review of literature dealing with these questions. Much of the literature accumulated in this study is of a related nature but little speaks directly to the questions being investigated. The literature will be reviewed first in terms of general information related to education and religion and then in terms of each of the three questions to which this study was addressed.

General

The literature contains several references to study of students' environment outside of school as it

relates to the total student and their performance in school.

Tyler comments that children's interests need to be identified to serve as a focus for their educational attention. He encourages studies of contemporary life outside the school and in his discussion twice mentions religion as a factor of contemporary life.¹ Some references make no mention of religion at all.

In a book that compares various educational systems in different nations, Havighurst mentions the role of religion and its relation to education in all five of the areas of the world that are considered.²

Jacob Neusner makes a cogent statement for the inclusion of the study of religion in the schools.

. . . religion is one of the common, practically universal intellectual experiences of young people. If this is so, then we can hardly deny the broadening civilizing potential of the study of various religions.³

In this article, Neusner goes on to point out some aspects for the study of religion including concepts of methodology, historical bases, sociology, and the

¹Tyler, op. cit., pp. 10-20.

²Robert J. Havighurst, Comparative Perspectives in Education (Boston: Little, Brown, and Company, 1968).

³Jacob Neusner, "Religion and the Humanities Course," Religious Education, LXV. (May-June, 1970), 252-256.

dual aspects of values and inquiry. This approach involves the teaching about as opposed to the teaching of religion, and so acknowledges that it is a viable force in history.

In a much more select application, Kramer speaks of the difference between communication of and communication between. His reference is to the Christian Faith as such. The former is the lower level of the communication or exchange of ideas, whereas the latter involves the actual development of faith and communication in a prayer sense.¹ Bruner has said:

. . . For if man's intellectual excellence is the most his own among his perfections, it is also the case that the most uniquely personal of all that he knows is that which he discovers for himself.²

While not writing specifically of religion, Carl Rogers has made this statement:

A further element which established a climate for self-initiated experiential learning is empathic understanding, when the teacher has the ability to understand the student's reactions from the inside, has a sensitive awareness of the way the process of education and learning seems to the student, then again the likelihood of significant learning is increased.³

One survey of religion in public schools as related to legal aspects goes to considerable length to affirm

¹Hendrick Kramer, The Communication of the Christian Faith (Philadelphia: The Westminster Press, 1956).

²Jerome S. Bruner, "The Act of Discovery" in Evans and Wagner, op. cit., p. BRU-2A.

³Carl R. Rogers, Freedom To Learn (Columbus, Ohio: Charles E. Merrill Publishing Company, 1969), p. 111.

that it is legal to teach about religion and contains information about selection and evaluation of subject matter, instructor, and gives practical suggestions for implementation of the curriculum.¹

Coe College has very recently produced a booklet regarding the inclusion of units or courses on religion in Iowa. This booklet also contains a historical summary of the development of such subject matter.²

On the other hand, not all agree that religion has any place in the public schools whatsoever.

Neill sees religion as either a negative influence or as little or no influence at all.³

An article of opinion that is opposed to religious education is that written by Boles.⁴ His main theme centers about the idea that religious people are a vast minority in our country at this time, and therefore any attempt to support any religious education is the forcing of a minority viewpoint on the majority. Boles says that

¹Peter Bracher, James V. Penoch, Nicholas Piediscalzi, James K. Uphoff, Public Education Religion Studies: Questions and Answers (Dayton, Ohio: Wright State University, 1974).

²An Information Packet for the Conferences on Religion and the Public Schools of Iowa. Cedar Rapids, Iowa: Coe College, 1979.

³A.S. Neill, Summerhill: A Radical Approach to Child Rearing (New York City: Hart Publishing Co., 1960).

⁴Harold Boles, "The Real Issue." Contemporary Education, XLI, No. 6 (May, 1970), 263-268.

the main reason that little opposition is raised is that it is considered socially unacceptable to speak out against religious things or religion in general. He then proceeds to eliminate about ninety percent of the church members as being in favor of religious education at public expense. Many of these he classes as just "social affiliators", and he sets forth the following reasons in particular for his opposition:

1. Churches establish schools only to maintain their own belief.
2. It is enough of a problem just to support public schools.
3. Public schools are "the only common socializing institutions".
4. Support of religious schools (by the public) would result in more school districts in an age of consolidation.
5. There would be increasing regulation of the public schools while the religious schools would be able to accept or reject students largely as they pleased.
6. Religious schools already receive tax concessions.
7. Parents sending their children to non-public schools are entitled to no guarantees.

It is easy to see that Boles is referring to public schools as separate operations but these arguments could also be applied to inclusion of religion in the curriculum. He then presents the following choices:

1. Teach NO religion;
2. Teach ALL faiths;
3. Teach the dichotomous concepts of religion;
4. Remain quiescent;

5. Face the issue.

Boles obviously favors the first choice although he has attempted to encourage the last.¹ His view is extremely negative.

A short article that carries to its extreme conclusion the idea of separation of church and state is one by John Gummere.² The single point is that to logically carry this separation to its conclusion would be both ridiculous and difficult. This would, according to this article, preclude the use of such musical compositions as "America", "America the Beautiful", "God Bless America", and "The Star Spangled Banner" because all contain references to God. Further, it would then be also illegal to even use the melodies because they suggest the words. The concluding sentence is:

"All these complications could have been avoided if only the people who wrote the words of the songs had not believed in God."

By contrast, the State of California, in 1957, had published a small book that dealt with the development of moral and spiritual values in the school and defended their inclusion as beneficial.³ Besides defending and

¹Boles, op. cit., pp. 266-268.

²John F. Gummere, "Schools, Songs, and Supplications," Schools and Society, XCVIII Summer, 1970, 299-300.

³California Committee for the Study of Education. Developing Moral-Spiritual Values in the Schools (San Francisco, California: Fearon Publishers, 1957).

encouraging this process, the book also contains methods of presentation and curriculum development as well as evaluation of the program.

Senator Walter F. Bennett of Utah, writing in Religious Education, has clearly illustrated some of the connections between religion and the public schools. This article is a synthesis of the opposing views presented above. His final idea is that the schools and religious organizations must adjust to each other; "...we should involve ourselves for the well being of the child and not the church."¹ Bennett states that it is the duty of the church to teach moral concepts and also to teach about religion, however the schools must remain neutral in terms of specific religion, of for no other reason than that they are tax supported. In many regards, according to this excellent article, church and school serve many of the same functions in society. Both have a deep obligation to the service of growing children. Adults may be able to separate the ideas of church and school, children can not.

Senator Bennett lists the following qualities of religion, here paraphrased for briefness:

1. Systems of concepts and doctrines, which includes the acceptance of God and His divine power;
2. Acceptance of a sacred literature:

¹Wallace F. Bennett, "Religion and the Public Schools," Religious Education, LXV (July-August, 1970), 340-343.

3. Acceptance of a personal obligation to serve God;

4. Acceptance of a parallel acceptance with a record of history and tradition;

5. Acceptance of a reasonable adherence to a way of life;

6. A joining with others of like concepts and standards in an institution which we call a church, for the purpose of learning, for fellowship, and for worship.

Some of the adjustments that have been made already by the schools follow, the corresponding numbers relating to the above.

1. "...under God..." as found in the Pledge of Allegiance. The existence of God is acknowledged in the repeating of the above, as recently amended. Also, this acceptance is found in many of the ceremonial functions in government.

2. Both historical and sacred literature contain a moral code and a philosophy that is worth studying.

3. Little adjustment can be made on this point in public schools.

4. This is a matter of a person's right to know and be informed.

5. Our free system of government is based on religious traditions. "From tradition and the churches representing it we have learned the fundamentals of morality and responsibility."¹

6. Has already been treated throughout the article and serves as a premise for the article.

Dierenfield, writing in 1958, summarized the relationship between religion and American public schools in three words: interest, controversy, and experi-

¹Bennett, op. cit., p. 34.

mentation.¹

Looft, in 1966, reported on religious instruction practices in seven midwestern states' public schools in which he identified 31 practices in use at that time. These practices were sanctioned by official school policies although he saw them as legally questionable. The frequency of these practices did not increase from 1954-60, 8 showed a decline of 10% or more. There was one that did increase, by 4.8%, and that was shared time.² Dewey commented upon one of many religious influences:

. . .The greatest influence of Protestantism was, however, in developing the idea of the personality of every human being as an end in himself. . .For when in religion the idea of the intrinsic worth of soul was proclaimed, it was difficult to keep the idea from spilling over, so to say, into secular relationships.³

Jones stated:

The influence of identity formation and conceptual growth and religious development clearly points to a correlation between the three systems, but the necessary data⁴ for establishing a causal relationship are not available.

¹Richard Bruce Dierenfield, "An Examination of the Current Relationship Between Religion and American Public Schools," Dissertation Abstracts International, XIX (1958), 2525.

²Robert Dean Looft, "Religious Instruction Practices in the Public Schools of Seven Midwest States," Dissertation Abstracts International, XXVII (1967), 2092.

³John Dewey, Reconstruction in Philosophy (Boston: Beacon Press, 1948), p. 46-47.

⁴Jean McClarin Jones, "The Religious Development of Children in Interrelationship with Identity Formation and Conceptual Growth," Dissertation Abstracts International, XXIX (1968), 1462.

In encouraging the study of religion in public schools, Krahn adopts Paul Tillich's definition of religion as "that which concerns us ultimately". Then goes on to say:

Unfortunately most teachers view their pupils in a limited way and do not get involved with religious concerns. Yet their students' ultimate concerns will not go away, will not stop being ultimate, will not stop having profound implications in their daily lives.¹

Another topic related to the general area of this study deals with the inclusion of "moral" or "moral-spiritual" education in the curriculum. In this regard, several books dealing with school-community relations did not or made only slight mention of religious factors.

Sumption and Engstrom made reference only to general community pressure groups.² Hunter commented that to get a community project under way it is important to bring the churches into the project but also that the religious leaders had quite little influence in the community in terms of economic decisions.³ Bortner mentioned that churches were a good opportunity for

¹John M. Krahn, "Religion: An Integral Part of Public Education," The Clearing House, XLVIII, No. 6 (Feb., 1974), 356-360.

²Merle R. Sumption, Yvonne Engstrom, School-Community Relations, A New Approach (New York: McGraw-Hill Book Company, 1966), pp. 25, 52.

³Floyd Hunter, Community Power Structure (Chapel Hill: The University of North Carolina Press, 1953), p. 83.

teachers to further school public relations, although civic organizations may be better.¹ Kindred acknowledges the lack of agreement on the subject of either religion of church and the relationships to the public schools.

Then he makes this statement:

. . . The influence of religious groups is especially strong in small communities and should not be minimized at any time even in the larger ones.²

Campbell and Ramseyer suggest that at the time of their writing some felt that the secularization of school had gone too far. They also state:

Most public schools today exercise great care to adhere to the principle of separation of church and state as anticipated by such court actions. . . It may even be the reason why some schools fail to give sufficient attention to the teaching of moral and spiritual values. Here is a need for clarification of issues. The teaching of moral and spiritual values is not to be confused with the teaching of religious doctrine. Religion is one of the sources from which our culture has derived its values and its ethics . . .³

The most frequently expressed concern with teaching values in the school is that it is values that are taught and not just religious institutions. The terms moral, moral-spiritual, and values seem to be used quite interchangeably in terms of the topics which they cover. The

¹Doyle M. Bortner, Public Relations for Teachers (New York: Simmons-Boardman Books, 1959), pp. 64-65.

²Leslie W. Kindred, School Public Relations (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1957), p. 221.

³Roald F. Campbell and John A. Ramseyer, The Dynamics of School-Community Relationships (New York: Allyn and Bacon, Inc., 1955), pp. 100-103.

term spiritual usually has a more aesthetic connotation to its usage.¹

Langdon and Stout make no mention of church nor religion but observe:

Parents want to know if the school is concerned with the moral principles underlying behavior; whether there is an emphasis on spiritual values in living; whether there is a conscious effort to move away from the purely materialistic in thinking about every day living. These questions often bring up another on the policy of the school as pertains to any form of religious teaching. This is for the administrator to answer.²

The California Committee for the Study of Education spoke to another facet of this subject.

The organism learns as a whole. This means mind, body, and soul have to be considered in the learning process. Means and ends, method and content, are inseparable and must be in harmony with democratic philosophy. . . Children and young people are educated by their whole environment. Home, church, and school in times past have been regarded as the chief educational influence. . .³

Durkheim also sees a close relationship. He states that historically there is a close tie between morality and religion. Then he warns that to try to eliminate everything religious from the traditional

¹Charles R. Kniker, You and Values Education (Columbus, Ohio: Charles E. Merrill Publishing Company, 1977), p. 13.

²Grace Langdon and Irving W. Stout, Helping Parents Understand Their Child's School (Englewood Cliffs, N.J.: Prentice-Hall, 1957), p. 478.

³Op. cit., p. 2.

system would then run the risk of also eliminating essential moral ideas and sentiments.¹

One description of religion was given by Morrison that also relates it to morality.

Religion is essentially learning in the appreciation type, and it is of course intimately related to right attitude toward conduct.²

Further responsibility is placed upon the church with regard to our human station to an extent that the schools in America may not go. In the words of Illich:

The church teaches us to discover the transcendental meaning of this experience of life. She teaches us in liturgical celebration to recognize the presence of Christ in the growing mutual relatedness which results from the complexity and specialization of developments. And she reveals to us the personal responsibility for our sins: our growing dependence, solitude, and cravings which result from our self-alienation in things and systems and heroes . . . Thus the church does not orient change, or teach how to react to it.

The total community is involved in the teaching of tasks and values to youth. Havighurst relates that:

Also the American school is expected to help out other training institutions of the society--the family, church, industry, youth serving organizations--in the teaching of such diverse tasks as learning physical skills, selecting and preparing for marriage, and

¹Emile Durkheim, Moral Education (New York: The Free Press, 1961), p. 19.

²Henry C. Morrison, The Practice of Teaching in the Secondary School (Chicago, Illinois: The University of Chicago Press, 1926), p. 375-376.

³Ivan D. Illich, Celebration of Awareness (New York: Anchor Books, 1971), pp. 89-90.

learning a scale of values.¹

In a parallel fashion he places much the same responsibility upon the church when it is indicated that the church should help in the achievement of identity through its educational program. The four specific areas mentioned are the body and sex role, choice of an occupation, emotional independence from parents, and developing a philosophy of life.²

The preceding selections show the relatedness between the school and the church or churches in the life of school students, or at least of those who avail themselves of the services of both institutions.

Question 1

Question 1 asks: Do church-goers receive higher grades?

The literature reviewed here follows the pattern of most of the literature reviewed for this study, which is that it is related but does not usually speak directly to the questions being studied.

One study of occupational status found that actual achievement was more important in determining status than were other views of achievement, whether gilded or ascription. The ethnic group was a significant factor,

¹Havighurst, Developmental Tasks and Education, p. 29.

²Havighurst, The Educational Mission of the Church, pp. 54, 57.

but no significant effects were reported for the sex or religion of the subject.¹

Religious doctrine was found to influence the way a child is socialized which includes his orientation to academic or other types of success. This study also concluded that the effect of religion, like that of race, depended also on the attributes of the individual and on their social environment.²

It was found in a study conducted in 1971 that the 23,000 eleventh and twelfth graders that listed in the top 2 percent of the students in their high schools were:

58% white Protestants,
25% Catholics,
8% Jewish,
7% Blacks.³

The study made no attempt to weigh the findings in relation to the actual populations of each of the identified groups.

Another approach to academics and religious background was taken by Ramsey as he examined the father's occupation, family income, type of secondary school

¹A. George Gitter, Julie Atavela, and David I. Mostofsky, "Effect of Sex, Religion, and Ethnicity on Occupational Status Perception," Journal of Applied Psychology, LIX, No. 1, (Fall, 1974), 96-98.

²J. Veroff and associates, "Achievement, Motivation, and Religious Background," cited in Boocock, op. cit., p. 55.

³Allen S. Muller, "Religious Pluralism, Political Values, and American Teenagers," Religious Education, LXIX, (July-August, 1974), 446-7.

attended, religious affiliation, and region of residence. The finding was that among a group of Harvard Law School freshmen, their undergraduate grade point average was strongly related to the characteristics of the father.¹

Some studies have been done that compare various religious groups achievement levels.

One of these studies compared parochial and public school students.² The findings indicate that children from high income, white collar, and better educated families are more likely to attend parochial schools. When matched for sex and geographic region some say that parochial students perform better than public school students on achievement tests. One other factor mentioned in the source cited, is that the religious orientation of the school also has some effect on education. For example, Catholic parochial students have been seen to compare unfavorably on a test of open mindedness.

Another study concentrated on just Catholic students.³ Denny concluded that Catholic and non-Catholic students

¹R.R. Ramsey, Jr., "A Subcultural Approach to Academic Behavior," Journal of Educational Sociology, XXXV (1962), 355-376.

²Carl W. Backman and Paul F. Secord, A Social Psychological View of Education (New York: Harcourt, Brace and World, Inc., 1968).

³Terry Patrick Denny, "The Academic Achievement of Roman Catholic Students in Public High Schools," Dissertation Abstracts International, XXIII (1962), 155.

attending the same public high school did not differ in academic achievement. He also reported that the level of religiosity was unrelated to academic achievement. Six characteristics relating to high achieving Catholic high school students are that they work harder because they feel that they should, prefer to work alone, think good grades are important, are optimistic about the future, have better study habits, and have parents that are more helpful and ask about homework less.

Vanden Branden found that there was no correlation in the inventory he used to measure religious attitudes and grade point average among college age students.¹

Question 2

Question 2 asks: Are church-goers more involved in school activities? The importance of school activities, or extra-curricular activities, or by whatever name they may be called does not seem to be questioned. Nonetheless, some sources are cited relating to such activities.

"Uninvolved" is the term used by Glasser to describe those children who have not found people within their families and community to whom they can relate successfully.²

¹Robert John VandenBranden, "Religious Attitudes of Pre-service Teacher Education Majors," Dissertation Abstracts International, XXVI (1966), 5276.

²William Glasser, Schools Without Failure (New York: Harper and Row, 1969), pp. 16-17.

Furthermore Glasser feels that the only hope of the "uninvolved" is to find people with whom they can relate in school. The name of the book, Schools Without Failure is the obvious expression of Glasser's concern.

Avoiding failure, it is true, is a large portion of overcoming students' problems at schools and in their community. But so also is it necessary to develop some successes.

In a book not related directly to educational theory is found this cogent statement:

Educational psychologists have proposed that the key to successful learning is motivation and participation.¹

The four main motivators, in the above author's opinion, are achievement, recognition, advancement, and responsibility.²

One of the recommendations made by Conant for the junior high years is:

Group activities which have possible particular relevance for early adolescents should be part of the total program. These include musical and dramatic activities, assembly and homeroom programs, interest clubs, intramural athletics, and student council.³

In line with the above suggestion for homeroom

¹Kenton E. Ross, Management by Objectives (Cleveland, Ohio: Association for Systems Management, 1971), p. 8.

²Ross, op. cit., p. 30.

³James Bryant Conant, Recommendations for Education in the Junior High School Years (Princeton, N.J.: Educational Testing Service, 1960), p. 22.

programs, it seems that Glasser's suggestion for class meeting is definitely related to Conant's suggestion.¹

The present writer would suggest that perhaps Sunday school or mid-week or other educational or training sessions at churches would in many ways parallel and supplement the class meetings and extra-curricular activities of the school. In fact, due to smaller numbers, the church functions would probably allow greater participation by the members of that particular church group.

Participation in these varied activities would seem to enhance this idea stated by Bruner:

. . . It is, rather, a plea for the recognition of the continuity of knowledge.²

In what should be an encouragement for the varieties of experiences of the activities of the school, Bruner has said:

If the dangers of meritocracy and competitiveness, the risks of an overemphasis on science and technology, and the devaluation of humanistic learning are to be dealt with, we shall have to maintain and nurture a vigorous pluralism in America. The theatre, the arts, music, and the humanities as presented in our schools and colleges will need the fullest support.³

The writer would again suggest that the churches also contribute to the answering of the need for this

¹Glasser, op. cit., Chapters 10, 11, 12.

²Jerome S. Bruner, "Learning and Thinking," in Evans and Wagoner, op. cit., p. BRU-6B.

³Bruner, The Process of Education, p. 80.

pluralism, for those who participate.

In speaking of extra-curricular activities, spiritual considerations, and the opportunity for participation in a variety of activities, the concept of "aesthetics" will surface. Bertocci has a definition.

By aesthetic value, I mean the goal-directed experience of expression and appreciation undergone or "enjoyed" for its own sake.¹

Question 3

Question 3 asks: Do church-goers have certain different social characteristics in their school life?

Love and self-worth are so intertwined that they may properly be related through the use of the term identity.²

Marvin Powell has made the following observations, among others.³ There has apparently been a decline in the religious interest of young people and several studies, not identified, have been undertaken to determine the extent to which this is true. Experience has indicated that religious involvement is an extremely important factor in preventing amoral or delinquent behavior. J. Edgar Hoover has been quoted as saying that church attendance would help decrease delinquency. A Brooklyn

¹Peter A. Bertocci, "Education and the Ideal of Personality," Philosophy and Educational Development ed. George Barnett (Boston: Houghton Mifflin, Inc., 1966), p. 113.

²Glasser, op. cit., p. 13.

³Marvin Powell, The Psychology of Adolescence (New York: Bobbs-Merrill Company, 1963), Chapter 9.

judge observed that out of thousands of young people brought before him in a thirty year period only two had received regular organized religious instruction.

Further, young people have been more cautious about accepting organized religion than they have about religion as such. There is an increasing dislike of church services beginning in about sixth grade, but yet the interest in and concern for religion continues.

...religion must emphasize its present value in daily living, not just some future life. It must stress the importance of loving and being loved, and must particularly stress forgiveness...¹

The importance of self-perception is discussed by Soares and Soares.² Spiegler is referred to as stating that an important area for educational study is self-perceptions since the self-perception of a student has an effect on how that student will view the school and how that student will perform in the classroom. Three types of self-perceptions are identified. One is the "self-concept" which is how the student believes himself or herself to be at the moment. Another is the "ideal-concept" which is how that student wishes or hopes to be. The third of these self-perceptions is the various "reflected" selves

¹Ibid., p. 297.

²Anthony T. Soares and Louisa M. Soares, "Self-Perceptions of Culturally Disadvantaged Children," in Irvin J. Lehman and William A. Mehrens (eds.) Educational Research: Readings in Focus (New York: Holt, Rinehart, and Winston, Inc., 1971), p. 261.

which is how a student believes others view her or him.¹

Some studies have been done that examine certain groups. One of these deals with a "conspicuous religious minority" which is the Seventh-day Adventist young people who attend public high schools.² The conclusion of this study indicates that the students have no identifiable adjustment uniqueness. Differences may pose some problems for some students but those problems may be the result of a pattern of causes rather than due only to the religious causes.

A study by Jerry Bode considers relative mobilities of Catholics and Protestants in this country.³ Briefly, the opinion is expressed that the Catholics are less subject to problems of mobility associated with religion than are corresponding Protestants, although the term "status" was not defined in the article, Bode feels that Catholics are growing in status more rapidly than the Protestants.

About a decade ago a study was done concerning participants in some of the protests on college campuses in those times. While these students were admittedly a bit

¹Charles G. Spiegler, op. cit., p. 261.

²Glen H. Straight, "Identifiable Personality Characteristics Resulting from Membership in a Conspicuous Religious Minority in Public High Schools," Dissertation Abstracts International, XVII (1957), 810.

³Jerry G. Bode, "Status and Mobility of Catholics vis-a-vis Several Protestant Denominations: More Evidence," The Sociological Quarterly, XI, No. 1 (winter, 1970), 103-111.

older than the population being studied in this report, there are some observations that seem cogent. Astin studied college freshmen and observed that the parents of these students had less frequent church attendance patterns than parents of other college students, and also that the students had as the largest weighted common trait of no religious preference.¹

Briefly, the activist student is more likely to have no religious preference, to be politically liberal rather than conservative, to express an interest in artistic pursuits, to rate himself higher in originality, and to come from relatively well educated and affluent parents. Environmental characteristics of the institution seem to play almost no part in the emergence of such protest activity.²

According to Astin, the student input characteristics still appear to have more influence in determining whether or not such protests will occur.

A study in contrasts resulted in the conclusion that significant differences in religious attitudes do exist between a group of institutionalized girls and a group of the same community.³ The institutionalized girls:

1. appeared less ready to react to statements,
2. appeared less ready to make decisive choices between yes or no answers,

¹Alexander W. Astin, "Personal and Environmental Determinants of Student Activism," in Lehman and Mehrens (eds.), op. cit., pp. 218-230.

²Astin, op. cit., pp. 229-230.

³George Hopkins Sinclair, Jr., "Religious Attitudes of Forty Institutionalized Protestant Girls with Implications for Christian Education: A Comparative Study," Dissertation Abstracts International, XXV (1965), 7096.

3. showed significantly more psychosomatic symptoms of illness,
4. were "retarded",
5. were significantly more from broken homes and had had less contact with their fathers,
6. had parents who were significantly less involved in the life of the church,
7. evidenced more difficulty in social relations.

In a study that discussed church or Sunday school attendance in relation to the amount of cheating expected, Hartshorne and May concluded that such attendance did not appear to make a significant difference.¹ This particular study did not take into account the frequency of church or Sunday school attendance. The study included comparison of Catholic, Protestants, and Jews.

However, in another section of the three volume reports of their study, a different conclusion could be reached.² Here the statement is made that there is a consistent tendency shown for those who are more regular in Sunday school attendance to do better on the moral knowledge test used than those who are less regular. The study relied on the pupils' own statements of their frequency of attendance. However, those who attended once or twice a month scored about the same as those who attended three or four times a month.³

¹Hugh Hartshorne and Mark A. May, Studies in the Nature of Character, I (New York: The Macmillan Company, 1930), pp. 253-256.

²Hugh Hartshorne, Mark A. May, and Frank E. Shuttleworth, Studies in the Nature of Character, III (New York: The Macmillan Company, 1930), pp. 128-132.

³Ibid., pp. 131-132.

Where our records are unambiguous, it is clear that regularity of attendance is definitely associated with ability to score on the moral knowledge tests. We hesitate to attribute this to the work of the Sunday school, as superiority in the sort of things represented in our tests might well be a cause of greater regularity rather than an effect of it.¹

The California Committee for the Study of Education noted that there had been a few objective studies that indicate measurable change in conduct due to church-school attendance, and that delinquent boys attend church less regularly.²

Churches are described as an agency which encourages good moral behavior and which should provide a companion social environment to that of the school. The need is seen as greater for this companion social environment if the moral code is different from that of the community.³

...When social position is kept constant, there is a reliable tendency for those subjects rated high on religious observance to have higher character reputations than those rated low on religious observance, although those subjects with no church affiliation tend to have a lower character reputation than those who are affiliated with a church.⁴

The conclusions in this chapter were based on religious observance as marked largely by the frequency of attendance, and the strength of religious attitude. Havighurst and Taba concluded that:

¹Ibid.

²Ibid., p. 30.

³R.J. Havighurst and H. Taba, Adolescent Character and Personality (New York: John Wiley and Sons, Inc., 1949), pp. 192-193.

⁴Ibid., p. 66.

Church membership itself is not an independently powerful influence in the development of character but that church membership is often associated with other factors or constellations of factors that tend to produce good or bad character reputations.¹

They go on to say that the church tends to take on the characteristics of its membership and also that individuals in turn take on the reputation of their particular church.²

The true role of any church in the character formation of its members should probably be sought in an intensive study of individuals rather than of groups.³

A recent reference is a report from Boy's Town regarding the useage of alcohol, tobacco, and marijuana among adolescents. The information shows a definite negative relationship between those who claim religious affiliation and the use of the substances.⁴

Although some of the differences by religion are not great the patterns. . . are clear. The highest levels of useage are among those who report no religious affiliation. Among those claiming a religion, higher levels of use of most of the substances are reported by those of Jewish, Catholic, or non-fundamentalist Protestant religions. Lowest levels of use are to be found among the youth from the more fundamentalist religions such as the Baptists and Pentacostals.⁵

¹Ibid., p. 68.

²Ibid., p. 68-69.

³Ibid., p. 64.

⁴Ronald L. Akers, Marvin D. Krohn, Lonn Lanza-Kaduce, and Marcia Radosevich, Social Learning in Adolescent Drug and Alcohol Behavior (Boys Town, Nebraska: A Boys Town Research Project, 1977).

⁵Ibid., p. 32.

The difference between community and society is interestingly discussed by Knox. He feels that society is arbitrary and artificially organized. On the other hand the community is a "true meeting of persons in interpersonal communion in which there is a true exchange of virtues". He goes on to indicate that a community is where one can feel at home, an experience that involves caring and sharing. Community is one dimension of religion.¹

When studying a religious youth group it should be remembered that the youth of both the religious group and the school would almost certainly contain many of the same individuals.

Several interesting findings are reported by Shippey in his study of such a religious youth group.² In one of his surveys he found that 41.8% of the members of a religious youth group had no close friends within that peer group. When analyzing the social structure of such a group, leisure time interests and other factors external to the particular group were more influential factors. He noted that the internal structure of a religious youth

¹Lan Knox, "Religion and the Expectation of Modern Society Towards the Adolescent," Religious Education, LXX (1975), 649-60.

²Fredrick A. Shippey, "Clique Structure in Religious Youth Groups," Sociology and Social Research, LIV, No. 3 (1970), 371-77.

group is more affected by external conditions that are transferred into the organization.

. . .the presence of kindred educational goals appear to correlate positively with the friendship-clique pattern in this concrete situation. This is common ground within the youth groups substructure.¹

Among other findings Shippey reports that:

Findings of this study are: religious youth groups can be studied by the sociology of religion; religious youth groups are comprised of a secular semi-hidden clique structure which lacks the fully developed associational pattern found in high school and that the origin of the clique appears to be outside the religious group; the cohesiveness of cliques found in the religious youth group depend upon common secular good; clique structure probably interferes with the achievement of spiritual goals in the religious youth group; and, of course, more study is needed.²

The above sources of information and comment illustrate that the general area of religious influence has been a matter of some concern and study in the past. The facts that are presented indicate that there is an area where more knowledge is needed and that there are some relationships that do actually exist. The researcher has endeavored to show viewpoints that may not agree with one another and are also related to the general area of this study project.

There does not seem to be a study available for examination directly relevant to the relationship between religious orientation and activity and overall school

¹Ibid., p. 376.

²Ibid.

performance. However those cited in the foregoing pages indicate some related areas that have been explored.

Some of these tend to agree with the stated contention of the present researcher that there is definitely a relationship.

Chapter 3

RESEARCH PROCEDURES

The purpose of this study was to determine what relationships, if any, exist between the frequency of students' church attendance and their achievement and participation at a public school beyond regular classroom activities.

Information included in this chapter includes the (1) research design, (2) population identification, (3) sample, (4) inventory instrument, and (5) the method of data analysis.

Research Design

The research design was developed to test the hypotheses stated in Chapter 1 of this paper. The design included the collection of demographic information about the sample group, developing an inventory to provide data for comparison of the frequency of church attendance to various other activities or achievements of the members of the sample, validation and modification procedures for the instrument, administration and data collection, and analysis. A time frame for administration was not a consideration because the instrument was an inventory

descriptive instrument given during class time.

The three questions asked and then related null hypotheses are as follow.

Do church-goers receive higher grades? Two null hypotheses were stated to determine if the frequency of church attendance related to grades received.

1. There is no difference in grades received among those who do attend church and those who do not attend church.

2. There is no difference in honor roll membership among those who do attend church and those who do not attend church.

Are church-goers more involved in school activities? Five null hypotheses were stated to determine if the frequency of church attendance related to participation in school activities.

3. There is no difference in participation in non-athletic, non-musical extracurricular activities among those who do attend church and those who do not attend church.

4. There is no difference in participation in school sponsored athletics, other than physical education classes, among those who do attend church and those who do not attend church.

5. There is no difference in participation in vocal music activities among those who do attend church and those who do not attend church.

6. There is no difference in participation in instrumental music activities among those who do attend church and those who do not attend church.

7. There is no difference in terms of participation in school service positions among those who do attend church and those who do not attend church.

Do church-goers have certain social characteristics in their school life? Five null hypotheses were stated

to determine if the frequency of church attendance related to certain social characteristics.

8. There is no difference in the frequency of absence from school among those who do attend church and those who do not attend church.

9. There is no difference in how often students reported that they enjoyed school among those who do attend church and those who do not attend church.

10. There is no difference in how often students reported that they felt good about themselves among those who do attend church and those who do not attend church.

11. There is no difference in disciplinary action received among those who do attend church and those who do not attend church.

12. There is no difference in whether or not students planned to go on an optional class trip among those who do attend church and those who do not attend church.

Population Description

The population was defined as students enrolled in the freshman year, 9th grade, of public school and included protestant, Roman Catholic, and non-churched youth without reference to race, sex, or socio-economic considerations. The majority of persons professing religion in the United States center that profession around Christian churches so affiliations with other non-Christian religions were not considered in this study.¹

The population selected for this study was the

¹George E. Delury, ed., The World Almanac and Book of Facts (New York: Newspaper Enterprise Association, Inc., 1977), pp. 347-348.

ninth grade social science classes at a junior high school in Des Moines, Iowa. This included all ninth grade students. This population provided a good cross section because of a wide variation in incomes, professions of parents, fairly wide geographical area of the city, numerous national and religious backgrounds. Also the investigator became acquainted with the area over a period of thirteen years of teaching in that school, and living in the attendance area for eight years, and having all of his six children attend that school. It was limited in that there was a small observed number of Black students and an apparent lack of students of the Jewish persuasion. There was a large group of Latino students.

The population numbered 270 ninth graders; 186 or more usable responses were obtained when the instrument was administered.

This building contains grades six through nine. In addition to the prescribed courses there are several electives available to the ninth grade students, and a variety of non-athletic, non-musical extra-curricular activities including a Red Cross program with several activities within it, camera club, radio club, chess club, Bible club, Y-Teens, and a plant club.

Athletic options only were considered in the study. These athletics include track, cross-country, basketball, freshman football, swimming (at one of the high schools), wrestling, and baseball. Intermurals and

intramural programs are available in various combinations in these sports.

No music is required in the ninth grade so that any participation in music is an elective participation. Chorus may be taken as a full time or half time course. From the chorus group is selected a girls' group and a boys' group. Instrumental music is in the form of two bands, one more advanced, and an orchestra. Group or private instrumental music instruction is available during the school day.

School service positions are voluntary and include activities such as office workers, nurses helpers, librarian assistants, audio-visual crew, and closed circuit television operators, and monitors.

Since 1974, there has been a spring ninth grade trip to Kansas City, Missouri that is both educational and social. It extends over three days and two nights. At the time of this writing, 137 students have paid and are listed to participate in the 1979 trip in May. Except for severe discipline problems, participation in this trip is open to all members of the class subject to certain rules and parental approval.

Data from the demographic portion of the inventory is included in the appendix.

Discipline is adjusted in severity as required both by the nature of the infringement and by the number of referalls, in ranges from detention to expulsion in the

district buildings.

The number of students in the school was approximately 785, of which 270 were ninth graders. There were 48 faculty members including the principal, two vice principals, a full time counselor, and a full time nurse. The building contains programs for special education, learning disabilities, mentally deficient, language assistance for Spanish speaking students and for students from Viet Nam. Mainstreaming is utilized in various degrees in all of these programs.

The Inventory Instrument

An inventory was designed by the researcher in consultation with Drake faculty members to gather preliminary data. This inventory was devised to include (a) an overall view of the group studied, and (b) to collect descriptive data to test the null hypotheses listed in Chapter 1.

The form of the inventory was the Likert inventory style. A preliminary instrument was test administered to about twenty students of the ninth grade class of 1978 and to about twenty-five eighth graders, in the spring of 1978, and finally to the ninth grade class of 1978.

Following further consultation with faculty members at Drake University, some further refinements were made in the organization and construction, and wording of the instrument. Samples of both instruments are contained in the appendix.

Although it was not the purpose of the study to investigate socio-economic nor specific church's influence on school participation, the first portion of the inventory was planned to provide demographic information about the population in terms of sex, whether or not there was any church affiliation, which church, whether or not the respondent was baptized and if so the mode of baptism. The information so gathered is presented in the Appendix.

The inventory was anonymous and information was requested on only the current school year. The first item on the inventory regarded the frequency of attendance against which all other items were compared.

In relationship to the first question, which inquired if church-goers receive higher grades, one item asks about grade point average and another about being on the honor roll.

The question asked about the frequency of attendance at any church function rather than just worship services or Sunday school. This would then allow inclusion of instruction classes, youth groups, music or other rehearsals, parties, athletic events and any other service or activity.

In relationship to the second question, which inquires if church-goers are more involved in school activities, two questions were asked about five activities for a total of ten questions. Both the frequency of participation in and the number of groups in each of the activities was determined. The five activities included:

1. non-athletic extra-curricular activities other than vocal or instrumental music;
2. school sponsored athletics;
3. school sponsored vocal music;
4. school sponsored instrumental music, and;
5. school service positions such as office workers, nurse's helper, library worker, audio-visual, etc.

In relationship to the third question, which inquires if church-goers have certain social characteristics in their life, a total of six questions were asked.

Two of these had to do with the disciplinary action recieved in terms of frequency and severity.

Three others asked how often the student felt they enjoyed school, felt "good" about himself, and was absent from school.

And one question asked whether or not the student planned to go on an optional three day class trip to Kansas City, Missouri late in the school year.

The instruments were screened for responses on each of the items. A given inventory was useful on all, some, or none of the items for which information was sought.

Findings were tabulated according to frequency of responses to give a demographic group description.

The Chi-square test of independence was applied to the data generated on each of the above items of participation at school tabled against the frequency of church attendance. The Chi-square test was appropriate since the data was expressed in terms of frequency. The

use of the Chi-square statistic is discussed in Downie and Heath and other books.¹

The formula used for computation was:

$$\chi^2 = \sum \frac{(O-E)^2}{E} \quad \text{where } \chi^2 \text{ is the resultant statistic}$$

\sum is the summation of all following calculations

O is the observed frequency of responses

E is the expected frequency of responses

The technique for calculating the E in each cell is shown below.

The expected frequency for each cell was calculated by multiplying the total of the row by the total of the column in which that cell is located, and then dividing by the total number of the sample. M, N, and P represent the totals of the columns while R, S, and W represent the rows. T stands for the total number of the sample.

$\frac{MR}{T}$	$\frac{NR}{T}$	$\frac{PR}{T}$	R
$\frac{MS}{T}$	$\frac{NS}{T}$	$\frac{PS}{T}$	S
$\frac{MW}{T}$	$\frac{NW}{T}$	$\frac{PW}{T}$	W
M	N	P	T

The number of degrees of freedom was calculated by:

$$df = (r-1)(c-1)$$

¹Downie and Heath, op. cit., pp. 188ff; and John W. Best, Research in Education (2nd ed.; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), pp. 160-185; Walter R. Borg and Meredith D. Gall, Educational Research: An Introduction (2nd ed.; New York: David McKay Company, Inc., 1971), pp. 187-210, 221.

Where df represents the degrees of freedom, r the number of rows, and c the columns.

When appropriate, due to a low E, the Pirie and Hamden formula was used following the recommendations of Downie and Heath.¹

$$X^2 = \frac{N[(ad-bc) - \frac{1}{2}]^2}{klmn}$$

Where: X^2 is the resultant statistic, N is the number in the sample, and a, b, c, d, k, l, m, and n are:

a	b	k
c	d	l
m	n	N

When, in the cell tables, the frequencies were small, the rows and/or columns were combined.²

The Chi-square test was applied to the tables in four ways: (1) the entire table, (2) comparison of those who attend church more than once per week to the rest of the sample, (3) comparison of those who never attend church to the rest of the sample, and (f) those who attend church more than once per week to those who never attend.

Comparison of results from the administration of the test instrument given to the earlier sample are also included and comparison was made to the instrument given

¹Op. cit., pp. 196-198.

²J.P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill, 1965), p. 241.

to the present instrument. The instrument used in the test instrument was very similar to the final instrument and therefore provided partial replication of the descriptive analysis. Chi-square was applied only to the entire table. The two sample groups represented ninth grade classes of two consecutive years.

The 0.05 level of significance was chosen as the least critical level for rejection of the null hypothesis.

Chapter 4

FINDINGS

The purpose of this study was to determine if certain relationships exist between the frequency of students' church attendance and their achievement and participation at a public school beyond classroom activities.

Three questions and their related hypotheses have been presented in this study. Do church-goers receive higher grades? Are church-goers more involved in school activities? Do church-goers have certain different social characteristics in their school life?

This chapter presents the findings of this investigation. The null hypotheses will be discussed in this chapter while the questions will be considered in the next.

All twelve null hypotheses were tested by application of the chi-square test of independence to the entire tabled response, unless combining of rows/columns was necessary, and by comparison of most frequent church attenders to the balance of the group, those who never attend church to the rest of the group, and those most frequently attending church to those who never attend church.

The 0.05 level of significance was chosen as the least critical for rejection of the null hypotheses.

In the determination of rejection or retention of the hypotheses, statistically significant items and divisions of the arrays derived from the inventory were considered.

Null Hypothesis One

Null hypothesis one states that there is no difference in grades received among those who do attend church and those who do not attend church.

In testing null hypothesis one, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 1. Inventory item numbers 1, 11, and 18 are applicable to this null hypothesis, with item numbers 1, 10, and 11 applicable for the earlier test instrument administered to a different group.

1. The chi-square of 53.304 with 20 degrees of freedom for comparison of items 1 and 11 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of grade point average there is no difference related to the frequency of church attendance was rejected. Students who attended church more received higher grade point averages.

2. The chi-square of 91.437 with 4 degrees of

Table 1.

Comparison of the Frequency of Church Attendance with
Grade Point Average and Honor Roll Membership:
the Null-Hypothesis Relating to Question 1

Variable and Group in Terms of Church Attendance	Number of Respondants	Value of X^2	Degrees of Freedom	Significance
Null Hypothesis 1 Grade Point Average:				
Entire Group				
Test Inventory	188	28.699	9	0.001
Inventory	218	53.304	20	0.001
Never Attend to Balance of Group	218	7.928	1	0.01
More Than Once per Week to Balance	218	4.292	1	0.05
More Than Once per Week to Never	71	9.117	1	0.01
Null Hypothesis 2 Honor Roll:				
Entire Group				
Test Inventory	191	50.005	12	0.001
Inventory	221	14.904	5	0.02

Table 1 (Continued)

Variable and Group in Terms of Church Attendance	Number of Respondants	Value of X^2	Degrees of Freedom	Significance
Never Attend to Balance of Group	221	11.429	1	0.001
More Than Once per Week to Balance	221	4.479	1	0.05
More Than Once per Week to Never	72	12.506	1	0.001
Grade Point Average and Honor Roll Membership				
Entire Group	185			
Test Inventory	185	96.92	12	0.001
Inventory	219	91.437	4	0.001

freedom for comparison of items 11 and 18 was statistically significant at the 0.001 level of confidence. This data indicates that those students who reported the highest grades, also reported honor roll membership.

3. The chi-square of 28.699 with 9 degrees of freedom for comparison of items 1 and 11 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of grade point average, there is no difference related to the frequency of church attendance was rejected. Students who attended church more received higher grade point averages.

4. The chi-square of 96.92 with 12 degrees of freedom for comparison of items 10 and 11 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who reported the highest grades also reported honor roll membership.

5. The chi-square of 7.928 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 11 of the inventory was statistically significant at the 0.01 level of confidence. The null hypothesis that in terms of grade point average, there is no difference related to the frequency of church attendance was rejected. Students who attended

church received higher grade point averages than those who did not attend church.

6. The chi-square of 4.292 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 11 of the inventory was statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of grade point average, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week received higher grades than those who attended less than once per week.

7. The chi-square of 9.117 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 11 of the inventory was significant at the 0.01 level of confidence. The null hypothesis that in terms of grade point average, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week received higher grade point averages than students who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 11, and 18 of the inventory which compare grade point average and the frequency of church attendance, it was observed that 7 of 7 or 100% of those comparisons did indicate a

statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 11, 1 and 18, and 11 and 18 in the inventory and items 1 and 11, 1 and 10, and 10 and 11 of the earlier test instrument administered to a different group.

Null Hypothesis Two

Null hypothesis two states that there is no difference in honor roll membership among those who do attend church and those who do not attend church.

In testing null hypothesis two, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 1. Inventory item numbers 1 and 18, are applicable to this null hypothesis, with item numbers 1 and 11 on the earlier test instrument administered earlier and to a different group.

1. The chi-square of 14.904 with 5 degrees of freedom for comparison of items 1 and 18 of the inventory was statistically significant at the 0.02 level of confidence. The null hypothesis that in terms of honor

roll membership, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were more frequently on the honor roll.

2. The chi-square of 50.005 with 12 degrees of freedom for comparison of items 1 and 11 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of honor roll membership there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were more frequently on the honor roll.

3. The chi-square of 11.429 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 18 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of honor roll membership there is no difference related to the frequency of church attendance was rejected. Students who attended church at any frequency were more often on the honor roll.

4. The chi-square of 4.479 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1

and 18 of the inventory was statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of honor roll membership there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently than once per week were more often on the honor roll than students who attended church less frequently.

5. The chi-square of 12.506 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 18 of the inventory was significant at the 0.001 level of confidence. The null hypothesis that in terms of honor roll membership there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently than once per week were more frequently on the honor roll than those students who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1 and 18 of the inventory which compare honor roll membership and the frequency of church attendance, it was observed that 5 of 5 or 100% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 18 in the inventories and items 1 and 11 of the earlier test instrument administered to a different group.

Null Hypothesis Three

Null hypothesis three states that there is no difference in participation in non-athletic, non-musical extracurricular activities among those who do attend church and those who do not attend church.

In testing null hypothesis three, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Tables 2 and 3. Inventory item numbers 1, 2, and 12 are applicable to this null hypothesis.

1. The chi-square of 165.065 with 25 degrees of freedom for comparison of items 1 and 2 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of non-athletic, non-musical extracurricular activities there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently also more frequently attended these extracurricular activities.

Table 2

Comparison of the Frequency of Church Attendance with the Frequency of Attendance at the Indicated Activities and with the Number of Those Activities in which Students Participated Related to Question 2

Variable and Group in Terms of Church Attendance	Frequency of Attendance				Number of Activities			
	No.	X ²	df	Sig.	No.	X ²	df	Sig.
Null Hypotheses 3 Extra-curricular:								
Entire Group								
Test Inventory	195	59.24	16	0.001	194	62.718	20	0.001
Inventory	214	165.065	25	0.001	202	35.000	15	0.001
A.	214	85.65	1	0.001	202	22.669	1	0.001
B.	214	13.856	1	0.001	202	0.00009	1	1.0
C.	77	29.504	1	0.001	71	1.011	1	0.5
Null Hypothesis 4 Athletics:								
Entire Group								
Test Inventory	190	27.163	16	0.05	195	16.39	12	0.2
Inventory	224	93.372	25	0.001	204	33.308	15	0.01
A.	224	57.34	1	0.001	204	11.401	1	0.001
B.	224	0.455	1	0.5	204	0.001*	1	0.95
C.	77	3.421	1	0.1	73	1.114*	1	0.3

Table 2 (Continued)

Variable and Group in Terms of Church Attendance	Frequency of Attendance				Number of Activities			
	No.	X ²	df	Sig.	No.	X ²	df	Sig.
Null Hypothesis 5 Vocal Music								
Entire Group								
Test Inventory	198	22.141	8	0.01	195	56.566	1	0.001
Inventory	214	107.017	10	0.001	205	51.253	15	0.001
A.	214	84.218	1	0.001	205	36.673	1	0.001
B.	214	5.119	1	0.05	205	3.239	1	0.1
C.	75	23.153*	1	0.001	71	4.748*	1	0.05
Null Hypothesis 6 Instrumental Music:								
Entire Group								
Test Inventory	191	28.472	4	0.001	187	17.442	8	0.05
Inventory	199	70.506	10	0.001	186	41.217	10	0.001
A.	199	52.361	1	0.001	186	16.71	1	0.001
B.	199	4.373	1	0.05	186	0.993	1	0.5
C.	73	11.435*	1	0.001	71	4.798*	1	0.05

Table 2 (Continued)

Variable and Group in Terms of Church Attendance	Frequency of Attendance				Number of Activities			
	No.	X ²	df	Sig.	No.	X ²	df	Sig.
Null Hypothesis 7								
School Service Activities:								
Entire Group								
Test Inventory	191	25.141	12	0.02	187	23.718	10	0.01
Inventory	207	64.995	15	0.001	195	54.535	15	0.001
A.	207	37.897	1	0.001	195	16.654	1	0.001
B.	207	6.836	1	0.01	195	0.026	1	0.9
C.	71	7.035	1	0.01	71	0.132	1	0.8

From the inventory:

- A. comparison of those who never attend church to the balance of the group;
- B. comparison of those who attend church more than once per week to the balance of the group;
- C. comparison of those who attend church more than once per week to those who never attend church.

* Calculated by the Pirie and Hamden formula due to small frequencies.

Table 3

Comparison of the Frequency of Attendance at Activities with the
Number of Activities Participated in, as Reported on Both the
Test Inventory and the Inventory as Related to Question 2

Null Hypotheses and Variables	Number of Respondants	Value of χ^2	Degrees of Freedom	Significance
Null Hypothesis 3 Extra-Curricular:				
Test Inventory	189	56.496	20	0.001
Inventory	205	35.829	20	0.05
Null Hypothesis 4 Athletics:				
Test Inventory	188	72.467	12	0.001
Inventory	203	87.531	20	0.001
Null Hypothesis 5 Vocal Music:				
Test Inventory	195	139.631	9	0.001
Inventory	203	112.422	20	0.001

Table 3 (Continued)

Null Hypotheses and Variables	Number of Respondants	Value of X^2	Degrees of Freedom	Significance
Null Hypothesis 6 Instrumental Music:				
Test Inventory	195	84.417	6	0.001
Inventory	185	51.257	5	0.001
Null Hypothesis 7 School Service Activities:				
Test Inventory	187	54.484	9	0.001
Inventory	194	40.078	5	0.001

2. The chi-square of 35.000 with 15 degrees of freedom for comparison of items 1 and 12 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of non-athletic, non-musical extracurricular activities there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently participated in a larger number of these extracurricular activities.

3. The chi-square of 35.829 with 20 degrees of freedom for comparison of items 2 and 12 was statistically significant at the 0.05 level of confidence. This data indicates that those students who participate most frequently in non-athletic, non-musical extracurricular activities are also involved in a greater number of those activities.

4. The chi-square of 59.24 with 16 degrees of freedom for comparison of items 1 and 2 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently also more frequently attended these extracurricular

activities.

5. The chi-square of 62.718 with 20 degrees of freedom for comparison of items 1 and 12 of the test inventory administered earlier and to a different group was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently attended these extracurricular activities more frequently.

6. The chi-square of 56.496 with 20 degrees of freedom for comparison of items 2 and 12 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most frequently in non-athletic, non-musical extracurricular activities are also involved in a greater number of those activities.

7. The chi-square of 85.65 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 2 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is

no difference related to the frequency of church attendance was rejected. Students who attended church at all participated more frequently in these extracurricular activities than non-attenders.

8. The chi-square of 22.669 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 12 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was rejected. Students who attended church participated in a larger number of these extracurricular activities than those who do not attend church.

9. The chi-square of 13.856 with 1 degree of freedom for comparison of students who attend church more than once a week to the balance of the group for items 1 and 2 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week attended these extracurricular activities more frequently than students who were not

church-goers.

10. The chi-square of 0.00009 with 1 degree of freedom for comparison of students who attend church more than once per week to the balance of the group for items 1 and 12 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of non-athletic, non-musical extracurricular activities there is no difference related to the frequency of church attendance was retained.

11. The chi-square of 29.504 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 2 of the inventory was significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week attended non-athletic, non-musical extracurricular activities more frequently than those who never attended church.

12. The chi-square of 1.011 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 12 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the

number of activities in which students participate, the null hypothesis that in terms of non-athletic, non-musical extracurricular activities, there is no difference related to the frequency of church attendance was retained.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 2, and 12 of the inventory which compare non-athletic, non-musical extracurricular activities and the frequency of church attendance, it was observed that 7 of 9 or 77.8% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 3, 4, 5, 6, 7, 8, 9, and 11, but was retained for points 10 and 12 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 2, 1 and 12, and 2 and 12 in both inventories.

Null Hypothesis Four

Null hypothesis four states that there is no difference in participation in school sponsored athletics, other than physical education classes, among those who do attend church and those who do not attend church.

In testing null hypothesis four, the chi-square test of independence was used to determine the significance

of the entire array and of certain internal comparisons.

The data gathered are shown in Tables 2 and 3. Inventory item numbers 1, 3, and 13 are applicable to this null hypothesis.

1. The chi-square of 93.372 with 25 degrees of freedom for comparison of items 1 and 3 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of athletics, there is no difference related to the frequency of church attendance was rejected. Students who are more frequent church-goers participated more often in athletics.

2. The chi-square of 33.708 with 15 degrees of freedom for comparison of items 1 and 13 of the inventory was statistically significant at the 0.01 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of athletics, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently participated in a greater number of various athletics.

3. The chi-square of 82.531 with 20 degrees of freedom for comparison of items 3 and 13 was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most frequently in athletics are also involved in a greater number of those activities.

4. The chi-square of 27.163 with 16 degrees of freedom for comparison of items 1 and 3 of the test instrument administered earlier and to a different group was statistically significant at the 0.05 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of athletics, there is no difference related to the frequency of church attendance was rejected. Those students who attended church more frequently also participated more frequently in athletics.

5. The chi-square of 16.34 with 12 degrees of freedom for comparison of items 1 and 13 of the test inventory administered earlier and to a different group was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of athletics there is no difference related to the frequency of church attendance was retained.

6. The chi-square of 72.467 with 12 degrees of freedom for comparison of items 3 and 13 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most frequently in athletics are also involved in a greater number of those activities.

7. The chi-square of 57.34 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 3 of the

inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of athletics, there is no difference related to the frequency of church attendance was rejected. Those students who attended church more frequently were likewise more frequently in attendance at athletic events than students who did not attend church.

8. The chi-square of 11.401 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 13 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of athletics there is no difference related to the frequency of church attendance was rejected. Church going students participated in a greater number of athletic activities than students who did not go to church.

9. The chi-square of 0.455 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 3 of the inventory was not statistically significant at the 0.05 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of athletics there is no difference related to the frequency of church attendance was retained.

10. The chi-square of 0.001 with 1 degree of freedom

for comparison of students who attend church more than once per week to the balance of the group for items 1 and 13 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of athletics there is no difference related to the frequency of church attendance was retained

11. The chi-square of 3.421 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 3 of the inventory was significant at the 0.1 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of athletics there is no difference related to the frequency of church attendance was retained. Inspection of the data indicated that what relationship there was indicated students who attended church more frequently attend athletics more often.

12. The chi-square of 1.114 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 13 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of athletics there is no difference related to the frequency of church

attendance was retained.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 3, and 13 of the inventory which compare athletics and the frequency of church attendance, it was observed that 7 of 12 or 58.3% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 4, 7, and 8, but was retained for points 5, 9, 10, 11 and 12 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there was agreement of items 1 and 3, and 3 and 13 in both inventories.

Null Hypothesis Five

Null hypothesis five states that there is no difference in participation in vocal music activities among those who do attend church and those who do not attend church.

In testing null hypothesis five, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 2 and 3. Inventory item numbers 1, 4, and 14 are applicable to this null hypothesis.

1. The chi-square of 107.017 with 10 degrees of

freedom for comparison of items 1 and 4 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who more frequently attended church attended vocal music activities more often.

2. The chi-square of 51.253 with 15 degrees of freedom for comparison of items 1 and 14 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were involved in a greater number of vocal music activities.

3. The chi-square of 112.422 with 20 degrees of freedom for comparison of items 4 and 14 was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most frequently in vocal music are also involved in a greater number of those activities.

4. The chi-square of 22.141 with 8 degrees of freedom for comparison of items 1 and 4 of the test instrument administered earlier and to a different group was statistically significant at the 0.01 level of confidence. When considering students' frequency of

attendance, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently attended vocal music activities more often than those who attended church less frequently.

5. The chi-square of 56.566 with 1 degree of freedom for comparison of items 1 and 14 of the test inventory administered earlier and to a different group was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Those students who more frequently attended church participated in a greater number of vocal music activities.

6. The chi-square of 139.631 with 9 degrees of freedom for comparison of items 4 and 14 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who participated most frequently in vocal music are also involved in a greater number of those activities.

7. The chi-square of 84.218 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 4 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency

of attendance, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who attended church at any frequency were more frequently involved in vocal music than students who never attended church.

8. The chi-square of 36.673 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 14 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who never attended church less frequently attended vocal music activities than did church-goers.

9. The chi-square of 5.119 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 4 of the inventory was statistically significant at the 0.05 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week attended a larger number of vocal music activities.

10. The chi-square of 3.239 with 1 degree of

freedom for comparison of students who attend church more than once per week to the balance of the group for items 1 and 14 of the inventory was statistically significant at the 0.1 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was retained. The data indicated that there was a tendency for students who attended church more than once per week, participated in a greater number of vocal music activities.

11. The chi-square of 23.153 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 14 of the inventory was significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week were more frequently in attendance at vocal music activities than those who never attended church.

12. The chi-square of 4.478 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 14 of the inventory was statistically significant at the 0.05 level of confidence. When considering the

number of activities in which students participate, the null hypothesis that in terms of vocal music, there is no difference related to the frequency of church attendance was rejected. Those students who attended church more than once per week participated in a greater number of vocal music activities than did those who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 4, and 14 of the inventory which compare vocal music and the frequency of church attendance, it was observed that 8 of 9 or 88.88% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 4, 5, 7, 8, 11, and 12, but was retained for point 9 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 4, 1 and 14, and 4 and 14 in both inventories.

Null Hypothesis Six

Null hypothesis six states that there is no difference in participation in instrumental music activities among those who do attend church and those who do not attend church.

In testing null hypothesis six, the chi-square test

of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Tables 2 and 3. Inventory item numbers 1, 5, and 15 are applicable to this null hypothesis.

1. The chi-square of 70.506 with 10 degrees of freedom for comparison of items 1 and 5 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently also attended instrumental music activities more frequently.

2. The chi-square of 41.217 with 10 degrees of freedom for comparison of items 1 and 15 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of instrumental music there is no difference related to the frequency of church attendance was rejected. Those students who attended church more frequently attended a greater number of instrumental music activities.

3. The chi-square of 51.257 with 5 degrees of freedom for comparison of items 5 and 15 was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most

frequently in instrumental music are also involved in a greater number of those activities.

4. The chi-square of 28.472 with 4 degrees of freedom for comparison of items 1 and 5 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently participated in a greater number of instrumental music activities.

5. The chi-square of 17.442 with 8 degrees of freedom for comparison of items 1 and 15 of the test inventory administered earlier and to a different group was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently also attended instrumental music activities more frequently.

6. The chi-square of 84.417 with 6 degrees of freedom for comparison of items 5 and 15 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who

participated most frequently in instrumental music were also involved in a greater number of those activities.

7. The chi-square of 52.361 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 5 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church at all participated more frequently in instrumental music activities.

8. The chi-square of 16.71 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 15 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participated, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who never attended church attended a fewer number of instrumental music activities.

9. The chi-square of 4.373 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 5 of the inventory was statistically significant at the 0.05 level of confidence. When considering students'

frequency of attendance, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who never attended church participated in a smaller number of instrumental music activities.

10. The chi-square of 0.993 with 1 degree of freedom for comparison of students who attend church more than once per week to the balance of the group for items 1 and 15 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate the null hypothesis that in terms of instrumental music there is no difference related to the frequency of church attendance was retained.

11. The chi-square of 11.435 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 5 of the inventory was significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week attended instrumental music activities more frequently than those who never attended church.

12. The chi-square of 4.798 with 1 degree of freedom for comparison of students who attend church more

than once per week and those who never attended church for items 1 and 15 of the inventory was statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of instrumental music, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week participated in a larger number of instrumental music activities than those who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 5, and 15 of the inventory which compare instrumental music and the frequency of church attendance, it was observed that 8 of 9 or 88.88% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 4, 5, 7, 8, 9, 11 and 12, but was retained for point 10 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 5, 1 and 15, 5 and 15 in both inventories.

Null Hypothesis Seven

Null hypothesis seven states that there is no

difference in terms of participation in school service positions among those who do attend church and those who do not attend church.

In testing null hypothesis seven, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Tables 2 and 3. Inventory item numbers 1, 6, and 16 are applicable to this null hypothesis.

1. The chi-square of 64.995 with 15 degrees of freedom for comparison of items 1 and 6 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently participated more frequently in school service positions.

2. The chi-square of 54.535 with 15 degrees of freedom for comparison of items 1 and 16 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were active in a larger number of school service positions.

3. The chi-square of 40.078 with 5 degrees of freedom for comparison of items 6 and 16 was statistically significant at the 0.001 level of confidence. This data indicates that those students who participated most frequently in school service positions were also involved in a greater number of those activities.

4. The chi-square of 25.141 with 12 degrees of freedom for comparison of items 1 and 6 of the test instrument administered earlier and to a different group was statistically significant at the 0.02 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently participated more frequently in school service positions.

5. The chi-square of 23.718 with 10 degrees of freedom for comparison of items 1 and 16 of the test inventory administered earlier and to a different group was statistically significant at the 0.01 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were active in a larger number of school service positions.

6. The chi-square of 54.484 with 9 degrees of

freedom for comparison of items 6 and 16 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. This data indicates that those students who participate most frequently in school service positions were also involved in a greater number of those activities.

7. The chi-square of 37.897 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 6 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who never attended church participated less frequently in school service positions.

8. The chi-square of 16.654 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 16 of the inventory was statistically significant at the 0.001 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Those students who attended church less frequently participated in a smaller number of school service positions.

9. The chi-square of 6.836 with 1 degree of

freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 6 of the inventory was statistically significant at the 0.01 level of confidence. When considering students' frequency of attendance, the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week participated more frequently in school service positions than those who attended once per week or less.

10. The chi-square of 0.026 with 1 degree of freedom for comparison of students who attend church more than once per week to the balance of the group for items 1 and 16 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of school service positions there is no difference related to the frequency of church attendance was retained.

11. The chi-square of 7.035 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 6 of the inventory was significant at the 0.01 level of confidence. When considering students' frequency of attendance the null hypothesis that in terms of school service positions, there is no difference related to the frequency of church attendance was rejected.

Students who attend church more than once per week, attended school service positions more frequently than those who never attended church.

12. The chi-square of 0.132 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 16 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the number of activities in which students participate, the null hypothesis that in terms of school service positions there is no difference related to the frequency of church attendance was retained.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 6, and 16 of the inventory which compare school service positions and the frequency of church attendance, it was observed that 7 of 9 or 77.78% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 4, 5, 7, 8, 9, and 11, but was retained for points 10 and 12 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 6, 1 and 16, and 6 and 16 in both inventories.

Null Hypothesis Eight

Null hypothesis eight states that there is no difference in the frequency of absence from school among those who do attend church and those who do not attend church.

In testing null hypothesis eight, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 4. Inventory item numbers 1 and 10 are applicable to this null hypothesis. Items 1 and 9a are applicable in the test inventory given earlier and to a different group.

1. The chi-square of 64.81 with 1 degree of freedom for comparison of items 1 and 10 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of absences, there is no difference related to the frequency of church attendance was rejected. Students who went to church more frequently were absent less.

2. The chi-square of 21.894 with 8 degrees of freedom for comparison of items 1 and 9a of the test instrument administered earlier and to a different group was statistically significant at the 0.01 level of confidence. The null hypothesis that in terms of absences, there is no difference related to the frequency of church attendance was rejected. Students who went to church

Table 4

Comparison of the Frequency of Church Attendance with the Indicated
Aspects of the Certain Social Characteristics
Relevant to Question 3

Variable and Group in Terms of Church Attendance	Number of Respondants	Value of X^2	Degrees of Freedom	Significance
Null Hypothesis 8 Absence:				
Entire Group				
Test Inventory	136	21.894	8	0.01
Inventory	219	64.81	1	0.001
A.	219	19.879	1	0.001
B.	219	1.077*	1	0.3
C.	70	7.131*	1	0.01
Null Hypothesis 9 Frequency of Enjoying School:				
Entire Group				
Test Inventory	199	43.895	16	0.001
Inventory	225	51.381	25	0.001
A.	225	29.551	1	0.001
B.	225	4.881	1	0.05
C.	76	10.316*	1	0.01

Table 4 (Continued)

Variable and Group in Terms of Church Attendance	Number of Respondants	Value of χ^2	Degrees of Freedom	Significance
Null Hypothesis 10 Frequency of Feeling Good About Self:				
Entire Group				
Test Inventory	200	15.023	12	0.3
Inventory	225	29.021	20	0.1
A.	225	0.628	1	0.5
B.	225	11.57	1	0.001
C.	80	5.041*	1	0.05
Null Hypothesis 12 Participation in the Kansas City Trip:				
Entire Group				
Test Inventory				
(Actually Went)	195	12.31	4	0.02
Inventory				
(Planned to go)	217	15.184	5	0.001

Table 4 (Continued)

Variable and Group in Terms of Church Attendance	Number of Respondants		Value of X^2		Degrees of Freedom	Significance		
Null Hypothesis 11 Discipline:	Frequency of Discipline				Severity of Discipline			
	No.	X^2	df	Sig.	No.	X^2	df	Sig.
Entire Group								
Test Inventory	190	21.961	12	0.05	193	23.51	12	0.05
Inventory	213	64.361	16	0.001	219	31.843	20	0.05
A.	213	25.1	1	0.001	219	14.323	1	0.001
B.	213	0.00274	1	0.98	219	2.402	1	0.2
C.	72	0.074	1	0.8	72	4.262	1	0.05
Comparison of the frequency of Discipline and the Severity of Discipline:								
Entire Group								
Test Inventory	185	35.499	1	0.02				
Inventory	207	47.226	1	0.001				

From the Inventory:

- A. Comparison of those who never attend church to the balance of the group.
- B. Comparison of those who attend church more than once a week with the balance of the group.
- C. Comparison of those who attend church more than once per week with those who never attend church.

* Calculated by the Pirie and Hamden formula due to small frequencies.

more frequently were absent less. .

3. The chi-square of 19.879 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 10 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of absences, there is no difference related to the frequency of church attendance was rejected. Students who went to church were absent less than those who did not attend church.

4. The chi-square of 1.077 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 10 of the inventory was not statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of absences there is no difference related to the frequency of church attendance was retained.

5. The chi-square of 7.131 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 10 of the inventory was significant at the 0.01 level of confidence. The null hypothesis that in terms of absences, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week were absent less than those who attended church once per week or less.

In examining the confidence levels based on the

chi-square test of independence comparing items 1 and 10 of the inventory which compare absences and the frequency of church attendance, it was observed that 4 of 5 or 80.0% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 3 and 5, but was retained for point 4 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 10 in the inventory and items 1 and 9a of the earlier test instrument administered to a different group.

Null Hypothesis Nine

Null hypothesis nine stated that there is no difference in how often students reported that they enjoyed school among those who do attend church and those who do not attend church.

In testing null hypothesis nine, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 4. Inventory item numbers 1 and 7 are applicable to this null hypothesis.

1. The chi-square of 51.381 with 1 degree of freedom for comparison of items 1 and 7 of the inventory

was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of frequency of enjoying school, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently enjoyed school more frequently.

2. The chi-square of 43.895 with 16 degrees of freedom for comparison of items 1 and 7 of the test instrument administered earlier and to a different group was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of frequency of enjoying school, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently enjoyed school more frequently.

3. The chi-square of 29.551 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 7 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of frequency of enjoying school there is no difference related to the frequency of church attendance was rejected. Students who never attended church enjoyed school less frequently.

4. The chi-square of 4.881 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1

and 7 of the inventory was statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of frequency of enjoying school, there is no difference related to the frequency of church attendance was rejected. School was enjoyed more frequently by students who attended church more than once per week than by those who attended church once per week or less.

5. The chi-square of 10.316 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 7 of the inventory was significant at the 0.01 level of confidence. The null hypothesis that in terms of frequency of enjoying school, there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week enjoyed school more frequently than those who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1 and 7 of the inventory which compare frequency of enjoying school and the frequency of church attendance, it was observed that 5 of 5 or 100% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory

administered earlier and to a different group, there is total agreement of items 1 and 7 in both inventories.

Null Hypothesis Ten

Null hypothesis ten states that there is no difference in how often students reported that they felt good about themselves among those who do attend church and those who do not attend church.

In testing null hypothesis ten, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 4. Inventory item numbers 1 and 8 are applicable to this null hypothesis.

1. The chi-square of 29.021 with 20 degrees of freedom for comparison of items 1 and 8 of the inventory was statistically significant at the 0.1 level of confidence. The null hypothesis that in terms of the frequency of feeling good about oneself, there is no difference related to the frequency of church attendance was retained. The data did indicate a tendency that church-goers more frequently felt good about themselves.

2. The chi-square of 15.023 with 12 degrees of freedom for comparison of items 1 and 8 of the test instrument administered earlier and to a different group was not statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of the frequency of feeling good about oneself there is no

difference related to the frequency of church attendance was retained.

3. The chi-square of 0.628 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 8 of the inventory was not statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of the frequency of feeling good about oneself there is no difference related to the frequency of church attendance was retained.

4. The chi-square of 11.57 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 8 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of frequency of feeling good about oneself there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week, felt good about themselves more often than those who attended once per week or less.

5. The chi-square of 5.041 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 8 of the inventory was significant at the 0.05 level of confidence. The null hypothesis that in terms of frequency of feeling good about oneself, there is no difference related to the frequency of church attendance

was rejected. Students who attended church more than once per week, more frequently felt good about themselves than students who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1 and 8 of the inventory which compare frequency of feeling good about oneself and the frequency of church attendance, it was observed that 2 of 4 or 50% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 3 and 4, but was retained for points 1 and 2 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 8 in both inventories.

Null Hypothesis Eleven

Null hypothesis eleven states that there is no difference in disciplinary action received among those who do attend church and those who do not attend church.

In testing null hypothesis eleven, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 4. Inventory item numbers 1, 9, and 17 are applicable to this null hypothesis.

1. The chi-square of 64.361 with 16 degrees of freedom for comparison of items 1 and 9 of the inventory was statistically significant at the 0.001 level of confidence. When considering students' frequency of receiving discipline, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were less frequently given disciplinary actions.

2. The chi-square of 31.843 with 20 degrees of freedom for comparison of items 1 and 17 of the inventory was statistically significant at the 0.05 level of confidence. When considering the severity of discipline which students receive, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently when subjected to disciplinary actions, received less severe punishments.

3. The chi-square of 47.226 with 20 degrees of freedom for comparison of items 9 and 17 was statistically significant at the 0.001 level of confidence. This data indicates that those students who received discipline most frequently, also received more severe discipline.

4. The chi-square of 21.961 with 12 degrees of freedom for comparison of items 1 and 9 of the test instrument administered earlier and to a different group was statistically significant at the 0.05 level of

confidence. When considering students' frequency of receiving discipline, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently were less frequently given a disciplinary action.

5. The chi-square of 23.51 with 12 degrees of freedom for comparison of items 1 and 17 of the test inventory administered earlier and to a different group was statistically significant at the 0.05 level of confidence. When considering the severity of discipline which students receive, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was rejected. Students who attended church more frequently received less severe disciplinary actions.

6. The chi-square of 35.499 with 20 degrees of freedom for comparison of items 9 and 17 of the test instrument administered earlier and to a different group was statistically significant at the 0.02 level of confidence. This data indicates that those students who received discipline most frequently also received more severe discipline.

7. The chi-square of 25.1 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 9 of the inventory was statistically significant at the 0.001

level of confidence. When considering students' frequency of receiving discipline, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was rejected. Those who never attended church more frequently received disciplinary action.

8. The chi-square of 14.323 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 17 of the inventory was statistically significant at the 0.001 level of confidence. When considering the severity of discipline which students receive the null hypothesis that in terms of discipline there is no difference related to the frequency of church attendance was rejected. Those who never attended church received more severe disciplinary actions.

9. The chi-square of 0.00274 with 1 degree of freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 9 of the inventory was not statistically significant at the 0.05 level of confidence. When considering students' frequency of receiving discipline the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was retained.

10. The chi-square of 2.402 with 1 degree of freedom for comparison of students who attend church more than once per week to the balance of the group for items

1 and 17 of the inventory was not statistically significant at the 0.05 level of confidence. When considering the severity of discipline which students receive, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was retained.

11. The chi-square of 0.074 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 9 of the inventory was not significant at the 0.05 level of confidence. When considering students' frequency of receiving discipline, the null hypothesis that in terms of discipline, there is no difference related to the frequency of church attendance was retained.

12. The chi-square of 4.262 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 17 of the inventory was statistically significant at the 0.05 level of confidence. When considering the severity of discipline which students receive the null hypothesis that in terms of discipline there is no difference related to the frequency of church attendance was rejected. Students who attended church more than once per week, received less severe discipline than those who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1, 9, and

17 of the inventory which compare frequency of discipline and severity of discipline and the frequency of church attendance, it was observed that 6 of 9 or 66.7% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 4, 5, 7, 8, and 12, but was retained for points 9, 10, and 11 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 9, 1 and 17, and 9 and 17 in both inventories.

Null Hypothesis Twelve

Null hypothesis twelve states that there is no difference in whether or not students planned to go on an optional class trip among those who do attend church and those who do not attend church.

In testing null hypothesis twelve, the chi-square test of independence was used to determine the significance of the entire array and of certain internal comparisons.

The data gathered are shown in Table 4. Inventory item numbers 1 and 19 are applicable to this null hypothesis. Item numbers 1 and 18 are applicable from the earlier test inventory administered to a different group.

1. The chi-square of 15.184 with 5 degrees of freedom for comparison of items 1 and 19 of the inventory

was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of planning to go on the Kansas City trip, there is no difference related to the frequency of church attendance was rejected. Students who attended church more often planned to go on the Kansas City trip than those who did not attend church.

2. The chi-square of 12.31 with 4 degrees of freedom for comparison of items 1 and 18 of the test instrument administered earlier and to a different group was statistically significant at the 0.02 level of confidence. The null hypothesis that in terms of students who actually went on the Kansas City trip there is no difference related to the frequency of church attendance was rejected. The students who attended church more frequently were more frequently chosen to go to Kansas City.

3. The chi-square of 13.705 with 1 degree of freedom for comparison of students who never attend church to the balance of the group for items 1 and 19 of the inventory was statistically significant at the 0.001 level of confidence. The null hypothesis that in terms of planning to go on the Kansas City trip, there is no difference related to the frequency of church attendance was rejected. Students who attended church at any frequency more often planned to go on the Kansas City trip than students who never attended church.

4. The chi-square of 0.626 with 1 degree of

freedom for comparison students who attend church more than once a week to the balance of the group for items 1 and 19 of the inventory was not statistically significant at the 0.05 level of confidence. The null hypothesis that in terms of planning to go on the Kansas City trip there is no difference related to the frequency of church attendance was retained.

5. The chi-square of 4.151 with 1 degree of freedom for comparison of students who attend church more than once per week and those who never attend church for items 1 and 19 of the inventory was significant at the 0.05 level of confidence. The null hypothesis that in terms of planning to go on the Kansas City trip there is no difference related to the frequency of church attendance was rejected. Students who attended church more often than once per week more often planned to go on the Kansas City trip than those who never attended church.

In examining the confidence levels based on the chi-square test of independence comparing items 1 and 19 of the inventory which compare planning to go on the Kansas City trip and the frequency of church attendance, it was observed that 4 of 5 or 80% of those comparisons did indicate a statistical significance of at least the 0.05 level of confidence.

The null hypothesis was not retained for points 1, 2, 3, and 5, but was retained for point 4 of the above analysis.

Comparing the results of the total group chi-square tests of both the inventory and the test inventory administered earlier and to a different group, there is total agreement of items 1 and 9 in the inventory and items 1 and 18 of the earlier test instrument administered to a different group.

Chapter 5

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Information in this chapter includes (1) a summary of the procedures used in this study, (2) discussion and conclusions related to the questions proposed in the introduction to this study, and (3) recommendations.

The purpose of this study was to determine if certain relationships exist between the frequency of students' church attendance and their achievement and participation at a public school beyond regular classroom activities.

Three questions and their related hypotheses have been presented in this study. Do church-goers receive higher grades? Are church-goers more involved in school activities? Do church-goers have certain different social characteristics in their school life?

All twelve null-hypotheses were tested by application of the Chi-square test of independence both to the entire tabled response, unless combining of rows/columns was necessary, and by comparison of most frequent church attenders to the balance of the group, those who never attend church to the rest of the group, and those who most frequently attending church to those who never attend

church.

The 0.05 level of significance was chosen as the least critical for rejection of the null hypotheses. In the determination of rejection or retention of the hypotheses, statistically significant items and divisions of the arrays derived from the inventory were considered.

The inventory was given to ninth grade students.

Discussion

Many factors contribute to the development of individual characteristics of students which affect their school performance. Church attendance and participation in church sponsored events have sometimes been claimed to be positive factors in the development of youth.

The purpose of this study was to see if indeed there is a relationship between church attendance and school performance.

Question 1. Do church-goers receive higher grades?

This investigation compared the frequency of church attendance with both grade point average and honor roll membership in answering this question. Null-hypotheses 1 and 2 speak to this question.

The data strongly indicate that in all comparisons there was a significant relationship between the students' frequency of attendance at church and their grade point averages and their honor roll membership. The results for the entire group were positive and very significant on both the inventory and on the earlier test instrument

given to a different group of students. The relationship between the students reporting of their grades and honor roll membership was found to be consistent for the entire groups on both inventories.

The frequency of church attendance was also significantly related in terms of both grade point average and honor roll for the sub-group comparisons between those who never attend church with the balance of the group, those who attend church more than once per week with the balance of the group, and those who attend church more than once per week with those who never attend church.

On the basis of the data gathered during this study, church-goers do get higher grades than those who do not attend church, and that the frequency of church attendance is also a factor.

Question 2. Are church-goers more involved in school activities?

This investigation compared the frequency of church attendance with both the frequency of participation and the number of groups of a particular activity in which students participated as a means of answering this question.

The null hypotheses dealing with this question are number 3, related to non-athletic, non-musical extra-curricular activities; number 4, related to participation in athletics other than physical education classes; number 5, related to vocal music; number 6, related to instrumental

music; and number 7, related to school service positions such as office workers, nurses helpers, library assistants, audio-visual, monitors, and such.

The data strongly indicate that in all of the above activities, for the entire group, there is a strong relationship between the frequency of church attendance and the frequency of participation in the activities. The same result was found on the test inventory given several months earlier to a different group of students.

In all cases except athletics, for the entire group, the data indicate a strong relationship between the frequency of church attendance and the number of activities of a certain type in which students participated. A possible factor in this difference may be that the inventory used for this study was given in the fall and the test inventory was given in the spring of the preceding school year.

Any church attendance was consistently significantly related to both frequency of participation and the number of groups in which students participated when comparing those who never attend church to the balance of the group, on all five of the applicable null hypotheses.

On null hypotheses 3, 5, 6, and 7, but not on null hypothesis 4 dealing with athletics, there was a high degree of significance evident between the frequency of church attendance and the frequency of participation in school activities for the comparison of students who attend

church more than once per week to the balance of the group.

None of the null hypotheses showed a significant relationship between frequency of church attendance and the number of activity groups when comparing students who attend church more than once per week and the balance of the group. However, null hypothesis 5, regarding vocal music, did show a strong tendency for the most frequent church attenders to be involved in more vocal groups.

Four of the five null hypotheses showed a significant relationship between the frequency of church attendance and the frequency of participation in activities when comparing those who attend church more than once per week and those who never attend church. Null hypothesis 4, relating to athletic participation, did show a strong tendency toward a correlation.

Only the two null hypotheses relating to music, numbers 5 and 6, indicated a significant relationship in terms of the number of activities participated in when comparing students who attend church more than once a week with those who never attend church.

The relationship between the frequency of participation and the number of activities of a particular type in which students participated was highly consistent for the entire groups in both inventories.

On the basis of data gathered for this study, churchgoers are more involved in school activities, and the frequency of attendance is also a factor.

Question 3. Do church goers have certain different social characteristics in their school life?

This investigation compared the frequency of church attendance to the various characteristics. The applicable null hypotheses are number 8 which deals with absences, number 9 which deals with how often students feel they enjoy school, number 10 which deals with how often students feel good about themselves, number 11 which deals with discipline frequency and severity, and number 11 regarding participation in the Kansas City trip.

The data strongly suggests that in all of the above characteristics for the entire groups, except null hypothesis 9 relating to the frequency of students' feeling good about themselves, there is a strong relationship between frequency of attendance at church activities and these characteristics on both inventories. In the case of null hypothesis 10, for the entire group, the inventory did indicate a strong tendency toward a relationship although the test inventory given to the previous year's class showed no significant relationship.

Null hypothesis 8 dealt with the relationship between frequency of church attendance and frequency of absence. The data indicate that for the entire groups in both inventories, students who attended church more frequently were absent less. The same holds true for comparison of students who never attended church when compared to the balance of the group and for students who

attend church more than once per week when compared with those who never attended church. However, there was no significant difference when comparing students who attend church more than once per week with the balance of the group.

Null hypothesis 9 related to how frequently students felt that they enjoyed school. The data indicate that in all cases there was a significant positive relationship between the frequency of church attendance and the frequency of enjoyment of school. Both inventories showed this for the entire group. The sub group analysis for those who never attend church to the balance of the group, for those who attend church more than once a week to the balance of the group, and for those who attend church more than once per week to those who never attend church all indicate a significant relationship.

Null hypothesis 10 dealt with the frequency of church attendance to the frequency that students felt good about themselves. While the inventory did not show a significant relationship, it did indicate a strong trend for the entire group. The test inventory, however, did not show any significant relationship. There was no significant relationship indicated by the comparison of those who never attend church to the rest of the group. But for both those who attend church more than once per week compared to the balance of the group and for those who attend church more than once per week compared to those

who never attend church, there was indication that the more frequent church attenders more frequently feel good about themselves.

Null hypothesis 11 dealt with frequency of church attendance and discipline. The data gathered on both inventories for the entire groups indicate that those who attend church more frequently are significantly less subject to disciplinary measures both in terms of frequency and severity. The data also show, on both inventories for both groups, that those who receive discipline most frequently also receive the most severe disciplinary actions.

Null hypothesis 12 addressed the comparison of frequency of church attendance to participation in the Kansas City trip which was an optional ninth grade class activity lasting three days and two nights. Both inventories indicate that for the entire group the church-goers went or planned to go on the trip more than did non church-goers. The frequency of church attendance was also related. The inventory was based on students' plans to go while the test inventory, given in May of the preceding school year was given after the trip had actually taken place.

Data from the inventory also indicate a significant correlation between church attendance and those participating in the trip when comparing both those who never go to church with the balance of the group and those who attend church more than once per week with those who never attend church. No significant correlation was shown when comparing

those who attended church more than once per week with the balance of the group.

On the basis of the data gathered by this study, church-goers do have certain social characteristics than those who do not attend church in the areas of the frequency of absence, the frequency of enjoying school, both the frequency and the severity of discipline, and participation in the Kansas City trip. In the one remaining area of the frequency of feeling good about themselves statistical significance was not achieved, however the confidence level was 0.1 and there appeared to be a positive relationship between the frequency of feeling good about oneself and the frequency of church attendance.

Other Conclusions

On the basis of this study and its results all three of the questions posed in Chapter 1 and restated at the beginning of this chapter may be answered in the affirmative. Church-goers do receive higher grades. Church-goers are more involved in school activities. Church-goers do have certain different social characteristics in their school life.

In terms of the entire group studied, there is almost total agreement between the test inventory given in the spring of 1978 and the inventory given in November of 1978. The two areas of disagreement regarding significance at 0.05 or 0.1 are in the number of athletic

activities in which church-goers participate, and in the frequency of feeling good about themselves. In the case of the number of athletic groups the inventory indicated significance at the 0.01 level while the test inventory indicated a confidence level of 0.2. The inventory indicated a confidence level of 0.1 in regard to the frequency of feeling good about themselves while the test inventory indicated only a 0.3 level.

There was also total agreement between the two inventories when the entire group was considered in terms of related items. These items were grades and honor roll; the frequency of attendance at nonathletic, nonmusical extra-curricular activities and the number of those activities in which students participated; the frequency of attendance at athletic activities, other than physical education classes, and the number of athletic activities in which students participated; the frequency of attendance at vocal music activities and the number of those activities in which students participated; the frequency of attendance at instrumental music activities and the number of those activities in which students participated; the frequency of participation in school service activities and the number of those activities in which students were involved; and the frequency and severity of disciplinary actions.

The wording of some of the inventory items was changed slightly between the two instruments, but these changes did not affect the results and the two items of

disagreement noted above were not on items where that wording change took place. As pointed out above, the test inventory and the actual study inventory were administered in the spring of one school year and in the fall of the following school year. Therefore, there is considerable replication of the research.

An examination of the data shows that the most consistent indications of significance occur in terms of the entire group and in the comparison of those students who never attend church to those who do attend, however seldom or frequently. Therefore, on the basis of this data, any church attendance does affect the participation and involvement and the certain social characteristics studied in terms of the students school life.

The most frequent areas of lack of significance are to be found in the comparison of students who attend church more than once a week to the balance of the group and then in the comparison of those who attend church more than once a week to those who never attend. Analysis of the data related to question 2, relating to involvement in school activities, shows a consistent pattern that there is a greater relationship to the frequency of attendance at a particular activity than there is to the number of the various types of activities of a similar nature. Churchgoers therefore seem to become more deeply involved in fewer activities.

In regard to question 3 dealing with certain

different social characteristics, the frequency of discipline shows practically no correlation to the most frequent church attenders, although as pointed out above, there is a high level of confidence for the comparison between those who never attend and the rest of the group. This verifies that kids will be kids.

Recommendations

1. Using this study as an indication that there is indeed a relationship between church attendance and school participation and achievement, further study should be conducted to determine which churches have the greatest relationship.

2. Further study should be done to determine what practices are most seemingly beneficial in a total church program to students' participation and involvement in their school program.

3. Further study should be done on other non-school institutions to determine if they too have an effect on students' school participation and achievement.

4. Additional research should be conducted to determine if there is a causal relationship existing between church attendance and school participation and achievement as defined in this study.

5. The possible input of the school on students' church participation, the reverse of this study, should be investigated.

6. The nature of students' activities at church should be investigated relative to their school activities.

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APPENDIXES

APPENDIX A

DEMOGRAPHIC INFORMATION

Total Number in the Ninth Grade Class	271
Total Number of Inventories Received	236 some only partially useable
<u>Sex</u>	
Female	109
Male	120
<u>Church</u>	
Affiliated with any church	137 yes 90 no
Member	108 yes 113 no
Affiliation	44 Catholic 26 Liturgical Protestant 53 Fundamentalist Protestant 1 Jehovah's Witness 113 Other
<u>Baptized</u>	135 yes 74 no
Sprinkling or pouring Immersion	87 43
Infant Ages 2 through 14	90 46
Honor Roll of November, 1978, ninth grade	79 total 9 all A's 43 A's and B's 27 B average
<u>Music</u>	
Ninth grade chorus	97
Ninth grade band/ instrumental	26

This researcher has kept an informal tally for the last seven years on the population at the school where this research was done. Not including this study, a total of 790 students responded. 192 were Catholic, 414 Protestant, and 184 other or none in terms of their church affiliation.

APPENDIX B

STUDENT ACTIVITY OPINION INVENTORY

Do NOT put your name on this paper.

Please complete answers only on the basis of this year of school.

___ Female ___ Male

___ Catholic ___ Other

___ Protestant ___ None

___ Fundamentalist Protestant

Church Member ___ Yes ___ No

Baptized: Infant ___ Age ___

No ___ Sprinkle ___ Pour ___

Immerse ___

1. Attendance at any church sponsored service or activity.
2. When most active in non-athletic extra-curricular activities, how often did you attend?
3. When most active in school sponsored athletics, besides gym class, how often did you attend practices, meetings, or games?
4. How often do you participate in school sponsored vocal music activities?
5. How often do you participate in school sponsored instrumental music activities?

Less than once/month	Once/ month	Once/ 2 weeks	Once/ week	More than once/week	

17. What is the most severe discipline you have received this year?
 1-none 2-detention 3-sent to office 4-sent home for a day
 5-3 day suspension 6-suspended to DPS
18. Did you go on the Kansas City trip?

Less than once/month	Once/ month	Once/ 2 weeks	Once/ week	More than once/week	
1	2	3	4	5	6
	Yes			No	

APPENDIX C

STUDENT ACTIVITY INVENTORY

DO NOT PUT YOUR NAME ON THIS PAPER! ANSWER ONLY ON THE BASIS OF THIS SCHOOL YEAR.

_____Female _____Male

Are you affiliated with any church? ____Yes ____No

Which one?_____ Are you a member? ____Yes

____No. Have you been baptized? ____Yes ____No. Were

you baptized by ____sprinkling or pouring ____immersion?

How old were you when you were baptized? ____infant ____years

Comments:

	Less than once/month	Once/ month	Once/ 2 weeks	Once/ week	More than once/week
1. How often do you attend any church sponsored service or activity?					
2. When most active in non-athletic extra-curricular activities other than vocal or instrumental music, how often do you attend?					
3. When most active in school sponsored athletics, besides gym class, how often do you attend practices, meetings, or games?					
4. How often do you participate in school sponsored vocal music activities?					

	Less than once/month	Once/ month	Once/ 2 weeks	Once/ week	More than once/week
5. How often do you participate in school sponsored instrumental activities?					
6. How often do you work in school service positions? (Office worker, nurse's helper, library worker, audio-visual, etc.)					
7. How often do you feel that you enjoy school?					
8. How often do you feel "good" about yourself?					
9. About how often do you receive disciplinary action at school?					
10. About how often are you absent from school?					
	1	2	3	4	5
11. Please check the column nearest your grade point average. (1=A, 2=B, 3=C, 4=D, 5=F)					
12. In how many non-athletic school sponsored extra-curricular activities have you participated this year, other than vocal or instrumental music?					
13. In how many school sponsored athletic activities have you participated other than gym classes?					
14. In how many school sponsored vocal music groups have you participated?					
15. In how many school sponsored instrumental music activities have you participated?					

	Less than once/month	Once/ month	Once/ 2 weeks	Once/ week	More than once/week
16. In how many school service positions did you work this year?					
17. What is the most severe discipline you have received at school? 1=none, 2=detention, 3=sent to office 4=sent home for a day, 5=three day suspension, 6=suspended to D.P.S. (Department of Pupil Services).					
18. Have you been on the honor roll?	Yes			No	
19. Do you plan to go on the Kansas City trip?	Yes			No	